



**2019 – 4th QUARTER
(ANNUAL) OPERATIONS REPORT**

HYLAND FACILITY ASSOCIATES LANDFILL

**6653 Herdman Road
Angelica New York 14709**

Prepared for:

**Hyland Facility Associates
6653 Herdman Road
Angelica, New York 14709**

Prepared by:

**McMahon & Mann Consulting Engineering and Geology, P.C.
2495 Main Street
Suite 432
Buffalo, New York 14214**

**Permit Number: 9-0232-00003/00002
Facility Number SW # 02S17**

FEBRUARY 2020

MSW, INDUSTRIAL OR ASH LANDFILL ANNUAL/QUARTERLY REPORT

Submit the Annual Report no later than March 1, 2020.

A. This annual/quarterly report is for the year of operation from January 01, 2019 to December 31, 2019

B. Quarterly Report for: Quarter 1 Quarter 2 Quarter 3 Quarter 4

SECTION 1 – FACILITY INFORMATION

FACILITY INFORMATION			
FACILITY NAME: Hyland Facility Associates			
FACILITY LOCATION ADDRESS: 6653 Herdman Road	FACILITY CITY: Angelica	STATE: NY	ZIP CODE: 14709
FACILITY TOWN: Angelica	FACILITY COUNTY: Allegany	FACILITY PHONE NUMBER: 585-466-7271	
FACILITY NYS PLANNING UNIT: (A list of NYS Planning Units can be found at the end of this report). Allegany County			NYSDEC REGION #: 9
360 PERMIT #: 9-0232-00003/00002	DATE ISSUED: 12/1/2015	DATE EXPIRES: 5/1/2025	NYS DEC ACTIVITY CODE OR REGISTRATION NUMBER: 02S17
FACILITY CONTACT: Larry Shilling	<input type="checkbox"/> public <input checked="" type="checkbox"/> private	CONTACT PHONE NUMBER: 585-466-7271	CONTACT FAX NUMBER: 585-466-3206
CONTACT EMAIL ADDRESS: Larry.Shilling@casella.com			
OWNER INFORMATION			
OWNER NAME: Hyland Facility Associates	OWNER PHONE NUMBER: 585-466-7271	OWNER FAX NUMBER: 585-466-3206	
OWNER ADDRESS: 6653 Herdman Road	OWNER CITY: Angelica	STATE: NY	ZIP CODE: 14709
OWNER CONTACT: Larry Shilling	OWNER CONTACT EMAIL ADDRESS: Larry.Shilling@casella.com		
OPERATOR INFORMATION			
OPERATOR NAME: <input checked="" type="checkbox"/> same as owner		<input type="checkbox"/> public <input checked="" type="checkbox"/> private	
PREFERENCES			
<i>Preferred address to receive correspondence:</i> <input type="checkbox"/> Other (provide):		<input checked="" type="checkbox"/> Facility location address	<input type="checkbox"/> Owner address
<i>Preferred email address:</i> <input type="checkbox"/> Other (provide):		<input checked="" type="checkbox"/> Facility Contact	<input type="checkbox"/> Owner Contact
<i>Preferred individual to receive correspondence:</i> <input type="checkbox"/> Other (provide):		<input checked="" type="checkbox"/> Facility Contact	<input type="checkbox"/> Owner Contact

Did you operate in 2019? Yes; Complete this form.

No; Complete and submit Sections 1 and 23. If you no longer plan to operate and wish to relinquish your permit/registration associated with this solid waste management activity, also complete the "Inactive Solid Waste Management Facility or Activity Notification Form" located at: <http://www.dec.ny.gov/chemical/52706.html> .

SECTION 2 - SITE LIFE

1. Landfill Capacity Utilized Last Year (reporting year).

- a. What is the estimated landfill capacity that was utilized during the reporting year?

575,768 Cubic Yards of Airspace

- b. What is the estimated in-situ waste density for the reporting year?

0.88 Tons/Cubic Yard

Please do not report units as pounds per cubic yard.

2. Remaining Constructed Capacity

- a. What is the remaining capacity of the landfill that is already constructed?

1,125,577 Cubic Yards of Airspace

- b. What is the estimated remaining life of the constructed capacity?

1 Years 9 Months
at 465,000 Tons/Year.*

* Please note that this tonnage rate must include all materials placed in the landfill, i.e., waste, soil, cover, alternative daily covers, etc.

- c. The tonnage rate reported under 2.b. is based on (select one):

The amount of materials placed in the landfill in the reporting year

Estimated future disposal

Permit limit

Other (explain): _____

3. Permitted Capacity Still to be Constructed

- a. What is the remaining but not yet constructed landfill capacity that is authorized by a Part 360 permit?

5,191,500 Cubic Yards of Airspace

- b. What is the projected life of capacity reported in 3.a?

8 Years 3 Months
at 465,000 Tons/Year.*

* Please note that this tonnage rate must include all materials disposed in the landfill, i.e., waste, and soil and alternative daily covers.

- c. The tonnage rate reported under 3.b. is based on (select one):

The amount of materials placed in the landfill in the reporting year

Estimated future disposal

Permit limit

Other (explain): _____

4. Capacity Proposed in a Part 360 Permit Application

What is the capacity of any expansion proposed in a Part 360 permit application that has been submitted to the Department but not authorized by a permit as of the end of the reporting period?

0 Cubic Yards of Airspace

5. Estimated Potential Future Capacity Not Permitted or in an Application (optional)

What is the estimated capacity of any potential future expansion at the facility that is not yet authorized by a permit or proposed in a Part 360 permit application that has been submitted to the Department?

_____ Cubic Yards of Airspace

SECTION 3 - PRIMARY LEACHATE

Name of off-site leachate treatment facility(s) utilized: Wellsville WWTP, Jamestown WWTP, Belmont WWTP, and Town of Caneadea WWTP

Does the landfill have a constructed liner and a leachate collection system? Yes No

Enter the quantity of primary leachate that was collected, removed for on-site and off-site treatment, and recirculated each month, and the corresponding **Acreage, by Cell**:
(Note: For double-lined landfills this should not include the volume of leachate collected from secondary leachate collection and removal systems.)

For **each cell**, please report the **acreage** and the **primary leachate** amount.

	PRIMARY LEACHATE COLLECTED (GALLONS)						PRIMARY LEACHATE TREATED OFF SITE (GALLONS)						
	Cells 1, 2, 3, 4, 5A, and 5B (61.9 Acres)						Cells 1, 2, 3, 4, 5A, and 5B (61.9 Acres) includes secondary leachate						
January	1,146,234						1,139,793						
February	972,447						992,935						
March	886,864						951,498						
April	910,128						910,486						
May	1,026,152						985,349						
June	1,233,845						1,096,452						
July	1,034,429						1,159,612						
August	982,250						1,028,510						
September	982,416						916,680						
October	1,176,466						1,100,772						
November	1,016,325						1,095,490						
December	1,046,612						1,021,779						
ANNUAL	12,414,168						12,399,356						

	PRIMARY LEACHATE RECIRCULATED (GALLONS)						PRIMARY LEACHATE TREATED ON SITE (GALLONS)						
	There was no recirculation						There was no leachate treated on site						
January													
February													
March													
April													
May													
June													
July													
August													
September													
October													
November													
December													
ANNUAL													

Submit (attached to this form) a copy of the maintenance logs which document compliance with the Operation and Maintenance Manual's schedule for the routine annual flushing and inspection of the primary leachate collection and removal system. List required submissions that have been attached to this form or the reason for not attaching a required piece of information:

Jamko Technical Solutions, Inc. was on-site in April, May, and November 2019 to clean the leachate lines. Attachment 1 includes this information. The leachate impoundments were emptied and inspected by the NYSDEC. The substrate for both impoundment bays were cleaned in the spring of 2019.

Submit (attached to this form) a tabulated compilation of the semi-annual primary leachate quality data collected throughout the year including a summary comparing this year's data with the previous year's data and a summary discussion of results. This list should identify sample location(s) and method of analysis. List required submissions that have been attached to this form or the reason for not attaching a required piece of information:

On-Site Geological Services, D.P.C. (On-Site) provided a tabulated compilation of the semi-annual primary leachate quality data. This information is included in Attachment 2.

SECTION 4 - SECONDARY LEACHATE

Does landfill have a double liner system with a secondary leachate collection and removal system? Yes No

Submit (attached to this form) a tabulated compilation of the semi-annual secondary leachate quality data collected throughout the year including a summary comparing this year's data with all previous years' data and a summary discussion of results. This list should identify sample location(s) and methods of analysis. List required submissions that have been attached to this form or the reason for not attaching a required piece of information:

On-Site provided a tabulated compilation of the semi-annual secondary leachate quality data. This information is included in Attachment 2.

Please report total cost for the year, not cost/gal.

Leachate Cost: (including transportation if appropriate) during the calendar year for leachate treatment: \$

Refer to Attachments #13 and #14

Total quantity treated: 12,399,356 gal

Enter the quantity of secondary leachate that was collected, removed for on-site and off-site treatment, and recirculated each month, and the corresponding **Acreage, by Cell**:

For **each cell**, please report the **acreage** and the **secondary leachate** amount.

	SECONDARY LEACHATE COLLECTED (GALLONS) Cells 1, 2, 3, 4, 5A, and 5B (61.9 Acres)						SECONDARY LEACHATE TREATED OFF SITE (GALLONS) Cells 1, 2, 3, 4, 5A, and 5B (61.9 Acres)						
January	4,992						The volume of secondary leachate treated off site is included in the primary leachate volume table						
February	2,377												
March	3,044												
April	4,366												
May	4,094												
June	5,688												
July	24,804												
August	4,741												
September	2,066												
October	2,237												
November	2,602												
December	6,182												
ANNUAL	67,193												

	SECONDARY LEACHATE RECIRCULATED (GALLONS) There was no recirculation						SECONDARY LEACHATE TREATED ON SITE (GALLONS) There was no leachate treated on site						
January													
February													
March													
April													
May													
June													
July													
August													
September													
October													
November													
December													
ANNUAL													

SECTION 5 – BENEFICIAL USE DETERMINATION MATERIALS AND ALTERNATIVE OPERATING COVER MATERIALS

For each type of waste material that the Department has approved for use as alternative operating cover (AOC), intermediate cover, or other landfill material, provide the annual weight in tons, use (i.e., operating cover, intermediate cover, etc.), and source of material. (If material is from a solid waste facility also provide facility name, address, NYS Planning Unit, County/ Province, and State/Country.) Refer to the list of NYS Planning Units that can be found at the end of this report.

Type of Solid Waste	Weight (tons/year)	Use	NYS Planning Unit (See Attached List of NYS Planning Units)	County or Province	State or Country	Source (Facility and Address)
Aggregate/Concrete						
Contaminated Soil	1,185.28	AOC				
Foundry Sand						
Glass						
Industrial Waste (specify)						
Sandblast	152.17	AOC				
Solidification Bulking Agent (SBA)	3,734.03	SBA				
MSW Ash						
Wood Ash						
Paper Mill Sludge						
C&D	15,308.47	AOC				
Waste Tire-Derived Aggregate /						
Waste Tires						
Other (specify)						
Shredder Fluff	21,305.27	AOC				
Total AOC	37,951.19					
Total Beneficial Use Determination Materials	41,685.22					

Percent Alternative Operating Cover (AOC) Calculation

AOC Calculations: Total Tons AOC/Total Tons Waste Disposed x 100 = 8.2

Please note the calculation **is**: Tons AOC (from table above)/Tons Solid Waste (from table in Section 6) x 100 and **Not**: Tons AOC / (Tons Solid Waste + AOC) x 100

SECTION 6 - SOLID WASTE DISPOSED

Provide the tonnages of solid waste disposed. Exclude Beneficial Use Material amounts reported in Section 5 and Recyclable Material amounts reported in Section 8. Specify the methods used to measure the quantities disposed and the percentages measured by each method:

100 % Scale Weight

_____ % Estimated

_____ % Truck Count

_____ % Other (Specify: _____)

Type of Solid Waste	January (tons)	February (tons)	March (tons)	April (tons)	May (tons)	June (tons)	July (tons)
Asbestos	543.22	101.96	253.49	110.28	92.49	1,326.42	2,511.72
Ash (Coal)							
Ash (MSW Energy Recovery)							
Construction & Demolition Debris (mixed)	6,243.79	4,732.65	7,842.60	6,434.80	7,074.88	6,722.32	4,773.09
Industrial Waste (Including Industrial Process Sludges)	508.68	435.85	442.62	698.01	699.05	773.77	803.25
Mixed Municipal Solid Waste (Residential, Institutional & Commercial)	24,703.60	21,581.86	22,565.82	30,099.93	31,112.79	28,577.42	29,187.56
Oil/Gas Drilling Waste							
Petroleum Contaminated Soil	0	0	0	47.66	0	0	2,197.34
Sewage Treatment Plant Sludge	6,953.59	5,935.65	6,251.82	7,209.76	7,532.61	6,276.12	7,632.30
Treated Regulated Medical Waste							
Emergency Authorization Waste (Storm Debris)							
Other (specify)							
Total Tons Disposed	38,952.88	32,787.97	37,356.35	44,600.44	46,511.82	43,676.05	47,105.26

SECTION 6 - SOLID WASTE DISPOSED (continued)

Type of Solid Waste	Tip Fee (\$/Ton)	August (tons)	September (tons)	October (tons)	November (tons)	December (tons)	Total Year (tons)	Daily Avg. (tons)
Asbestos		894.50	1,025.15	303.66	1.54	0	7,164.43	22.96
Ash (Coal)								
Ash (MSW Energy Recovery)								
Construction & Demolition Debris (mixed)		8,502.41	4,209.40	1,905.96	1,907.46	2,076.38	62,425.74	200.08
Industrial Waste (Including Industrial Process Sludges)		548.69	400.03	553.16	454.37	553.56	6,871.04	22.02
Mixed Municipal Solid Waste (Residential, Institutional & Commercial)		28,791.91	26,687.27	24,716.95	22,910.80	16,057.87	306,993.78	983.95
Oil/Gas Drilling Waste								
Petroleum Contaminated Soil		682.39	406.09	0	0	0	3,333.48	10.68
Sewage Treatment Plant Sludge		8,008.90	7,666.96	4,029.80	5,394.16	5,310.54	78,202.21	250.65
Treated Regulated Medical Waste								
Emergency Authorization Waste (Storm Debris)								
Other (specify)								
Total Tons Disposed		47,428.80	40,394.90	31,509.53	30,668.33	23,998.35	464,990.68	1,490.35

SECTION 7 – SERVICE AREA OF SOLID WASTE RECEIVED

Please identify where the waste is coming from. The total tons received reported below should equal the total tons received in Section 6 (Solid Waste Disposed).
DO NOT REPORT IN CUBIC YARDS!

- If the waste **WAS** received from another solid waste management facility, please write in the name *and* address of the facility along with the appropriate state, county and planning unit/municipality.
- If the waste **WAS NOT** received from another solid waste management facility, please write in “**Direct Haul**” along with the appropriate state, county and planning unit/municipality where the waste was generated.

Specify transport method and percentages of total waste transported by each:

100 % Road _____ % Rail _____ % Water _____ % Other (specify: _____)

Explain which waste types and service areas below are included in these transport methods _____

SERVICE AREA OF SOLID WASTE RECEIVED					
TYPE OF SOLID WASTE	SOLID WASTE MANAGEMENT FACILITY FROM WHICH IT WAS RECEIVED (Name & Address) OR “Direct Haul”	SERVICE AREA STATE OR COUNTRY	SERVICE AREA COUNTY OR PROVINCE	SERVICE AREA NYS PLANNING UNIT (See Attached List of NYS Planning Units)	TONS RECEIVED
Asbestos					
	See Attachment 3 - Waste Origin and Attachment 9 - Tonnage Reports				
Ash (Coal)					
	See Attachment 3 - Waste Origin and Attachment 9 - Tonnage Reports				
Ash (MSW Energy Recovery)					
Construction & Demolition Debris (mixed)					

SERVICE AREA OF SOLID WASTE RECEIVED

TYPE OF SOLID WASTE	SOLID WASTE MANAGEMENT FACILITY FROM WHICH IT WAS RECEIVED (Name & Address) OR "Direct Haul"	SERVICE AREA STATE OR COUNTRY	SERVICE AREA COUNTY OR PROVINCE	SERVICE AREA NYS PLANNING UNIT (See Attached List of NYS Planning Units)	TONS RECEIVED
Industrial Waste (Including Industrial Process Sludges)					
Mixed Municipal Solid Waste (Residential, Institutional & Commercial)					
Oil/Gas Drilling Waste					
Petroleum Contaminated Soil					
Sewage Treatment Plant Sludge					
Treated Regulated Medical Waste (TRMW)*					
Emergency Authorization Waste (Storm Debris)					
Other (specify)					
TOTAL RECEIVED (tons): _____					

* List generators that provide you Certificates of Treatment forms and quantities of TRMW from each _____

SECTION 8 –LANDFILL RECYCLABLE & RECOVERED MATERIALS

Is your facility also a permitted or registered Recyclables Handling & Recovery Facility?

- Yes; Complete Section 9 for material recovered from the mixed solid waste stream. Complete a Recyclables Handling & Recovery Facility (RHRF) form for material received as source separated. The RHRF form is located at: <http://www.dec.ny.gov/chemical/52706.html> .
- No; Complete Section 9 for material recovered from the mixed solid waste stream and for material received as source separated.

A. Service Area of Recyclable Material Received

Please identify where the recyclable materials are coming from. DO NOT REPORT IN CUBIC YARDS!

- If the materials **WERE** received from another solid waste management facility, please write in the name and address of the facility along with the appropriate state, county and planning unit/municipality.
- If the materials **WERE NOT** received from another solid waste management facility, please write in "**Direct Haul**" along with the appropriate state, county and planning unit/municipality where the recyclables were generated.

Specify transport method, list type of material(s) and percentages of total waste transported by each:

_____ % Road: Waste Type(s): _____ _____ % Rail: Waste Type(s): _____
 _____ % Water: Waste Type(s): _____ _____ % Other (specify: _____): Waste Type(s): _____

SERVICE AREA OF RECYCLABLE MATERIAL RECEIVED					
MATERIAL	SOLID WASTE MANAGEMENT FACILITY FROM WHICH IT WAS RECEIVED (Name & Address) OR "Direct Haul"	SERVICE AREA STATE OR COUNTRY	SERVICE AREA COUNTY OR PROVINCE	SERVICE AREA NYS PLANNING UNIT (See Attached List of NYS Planning Units)	TONS RECEIVED
Commingled Containers <small>(metal, glass, plastic)</small>					
Commingled Paper <small>(all grades)</small>					
Single Stream <small>(total)</small>					
Brush, Branches, Trees, & Stumps					
Food Scraps					
Yard Waste <small>(curbside)</small>					
Other <small>(specify)</small>					
TOTAL RECEIVED (tons):					_____

SECTION 8 – LANDFILL RECYCLABLE & RECOVERED MATERIALS

B. Material Recovered

Identify the name of the destination facility to which the material was sent from your facility, the corresponding State/Country, the County/Province, the NYS Planning Unit, and the amount of material transported. **Refer to the list of NYS Planning Units that can be found at the end of this report.** DO NOT REPORT IN CUBIC YARDS!

Specify transport method and percentages of total material transported by each:

_____% Road _____% Rail _____% Water _____% Other (specify: _____)

Explain which materials and destinations below are included in these transport methods _____

PAPER RECOVERED					
RECOVERED MATERIAL	DESTINATION <small>(Name & Address)</small>	DESTINATION STATE OR COUNTRY	DESTINATION COUNTY OR PROVINCE	DESTINATION NYS PLANNING UNIT <small>(See Attached List of NYS Planning Units)</small>	TONS RECOVERED <small>(out of facility)</small>
Commingled Paper <small>(all grades)</small>					
Corrugated Cardboard					
Junk Mail					
Magazines					
Newspaper					
Office Paper					
Paperboard / Boxboard					
Other Paper <small>(specify)</small>					
TOTAL PAPER RECOVERED (tons):					_____

SECTION 8 – LANDFILL RECYCLABLE & RECOVERED MATERIALS (continued)

B. Material Recovered

GLASS RECOVERED					
RECOVERED MATERIAL	DESTINATION (Name & Address)	DESTINATION STATE OR COUNTRY	DESTINATION COUNTY OR PROVINCE	DESTINATION NYS PLANNING UNIT (See Attached List of NYS Planning Units)	TONS RECOVERED (out of facility)
Container Glass					
Industrial Scrap Glass					
Other Glass (specify)					
TOTAL GLASS RECOVERED (tons):					_____
METAL RECOVERED					
RECOVERED MATERIAL	DESTINATION (Name & Address)	DESTINATION STATE OR COUNTRY	DESTINATION COUNTY OR PROVINCE	DESTINATION NYS PLANNING UNIT (See Attached List of NYS Planning Units)	TONS RECOVERED (out of facility)
Aluminum Foil / Trays					
Bulk Metal (from MSW)					
Bulk Metal (from CD debris)					
Enameled Appliances / White Goods					
Industrial Scrap Metal					
Tin & Aluminum Containers					
Other Metal (specify)					
TOTAL METAL RECOVERED (tons):					_____

SECTION 8 – LANDFILL RECYCLABLE & RECOVERED MATERIALS (continued)

B. Material Recovered

PLASTIC RECOVERED					
RECOVERED MATERIAL	DESTINATION (Name & Address)	DESTINATION STATE OR COUNTRY	DESTINATION COUNTY OR PROVINCE	DESTINATION NYS PLANNING UNIT (See Attached List of NYS Planning Units)	TONS RECOVERED (out of facility)
Mixed Plastic (#1 - #7)					
PET (plastic #1)					
HDPE (plastic #2)					
Other Rigid Plastics (#3 - #7)					
Industrial Scrap Plastic					
Plastic Film & Bags					
Other Plastics (specify)					
TOTAL PLASTIC RECOVERED (tons):					_____

SECTION 8 – LANDFILL RECYCLABLE & RECOVERED MATERIALS (continued)

B. Material Recovered

MIXED MATERIAL RECOVERED					
RECOVERED MATERIAL	DESTINATION <i>(Name & Address)</i>	DESTINATION STATE OR COUNTRY	DESTINATION COUNTY OR PROVINCE	DESTINATION NYS PLANNING UNIT <i>(See Attached List of NYS Planning Units)</i>	TONS RECOVERED <i>(out of facility)</i>
Commingled Containers <i>(metal, glass, plastic)</i>					
Commingled Paper & Containers					
Single Stream <i>(total)</i>					
Other <i>(specify)</i>					
TOTAL MIXED MATERIAL RECOVERED (tons):					_____

SECTION 8 – LANDFILL RECYCLABLE & RECOVERED MATERIALS (continued)

B. Material Recovered

MISCELLANEOUS MATERIAL RECOVERED					
RECOVERED MATERIAL	DESTINATION (Name & Address)	DESTINATION STATE OR COUNTRY	DESTINATION COUNTY OR PROVINCE	DESTINATION NYS PLANNING UNIT (See Attached List of NYS Planning Units)	TONS RECOVERED (out of facility)
Electronics					
Textiles					
Brush, Branches, Trees, & Stumps					
Food Scraps					
Yard Waste (curbside)					
Other (specify)					
TOTAL MISCELLANEOUS MATERIAL RECOVERED (tons):					

VOLUME TO WEIGHT CONVERSION FACTORS

MATERIAL	EQUIVALENT		MATERIAL	EQUIVALENT		MATERIAL	EQUIVALENT	
GLASS – whole bottles	1 cubic yard	0.35 tons	GLASS - crushed mechanically	1 cubic yard	0.88 tons	ALUMINUM – cans – whole	1 cubic yard	0.03 tons
GLASS - semi crushed	1 cubic yard	0.70 tons	GLASS - uncrushed manually	55 gallon drum	0.16 tons	ALUMINUM – cans – flattened	1 cubic yard	0.125 tons
PAPER - high grade loose	1 cubic yard	0.18 tons	PLASTIC – PET – whole	1 cubic yard	0.015 tons			
PAPER - high grade baled	1 cubic yard	0.36 tons	PLASTIC – PET – flattened	1 cubic yard	0.04 tons			
PAPER - mixed loose	1 cubic yard	0.15 tons	PLASTIC – PET – baled	1 cubic yard	0.38 tons	WHITE GOODS - uncompacted	1 cubic yard	0.10 tons
NEWSPRINT - loose	1 cubic yard	0.29 tons	PLASTIC – styrofoam	1 cubic yard	0.02 tons	WHITE GOODS - compacted	1 cubic yard	0.5 tons
NEWSPRINT - compacted	1 cubic yard	0.43 tons	PLASTIC – HDPE – whole	1 cubic yard	0.012 tons			
CORRUGATED – loose	1 cubic yard	0.015 tons	PLASTIC – HDPE – flattened 1	1 cubic yard	0.03 tons			
CORRUGATED - baled	1 cubic yard	0.55 tons	PLASTIC – HDPE – baled	1 cubic yard	0.38 tons	FERROUS METAL - cans whole	1 cubic yard	0.08 tons
			PLASTIC – mixed (grocery bags)	45 gallon bag	0.01 tons	FERROUS METAL - cans	1 cubic yard	0.43 tons

SECTION 9 – UNAUTHORIZED SOLID WASTE

Has unauthorized solid waste been received at the facility during the reporting period?

Yes No If yes, give information below for each incident (attach additional sheets if necessary):

Date Received	Type Received	Date Disposed	Disposal Method & Location

Radiation Monitoring

Does your facility use a fixed radiation monitor? Yes No

Identify Manufacturer Ludlum and Model 375 of fixed unit.

Does your facility use a portable radiation monitor? Yes No

Identify Manufacturer Ludlum and Model 702i of portable unit.

If the radiation monitors have been triggered give information below for each incident:

Incident Number	Received		Hauler	Origin	Truck Number	Reading	Disposal Status	Removed	
	Date	Time						Date	Time
	See Attachment 18 for the Radiation Monitoring Summary Table								

SECTION 10 - WASTE IN PLACE

Summary by Waste Type and Year

Include all active and inactive sections of the landfill. Report waste disposed annually by type, if known, in tons per year. Report total waste disposed, if breakdown of types is not available. In the case where more than one landfill section operated in a given year identify each separately, if known. If the annual amount is not available, report the quantities for a range of years. If you include amounts from old, closed landfills then clearly identify them on the table and explain below. In each row, report quantities disposed each year (or group of years if individual years unknown) for each waste type. Report cumulative WIP at bottom (sum of annual quantities disposed). Add additional sheets as necessary.

Year	MSW (tons)	Asbestos Waste (tons)	Ash (tons)	C&D Debris (tons)	Industrial Waste (tons)	Petroleum Contaminated Soil (tons)	Sewage Treatment Plant Sludge (tons)	Other (tons)	Year(s) Total (tons)	Identify Landfill Section(s) Used
	Data for years 1998 through 2019 are included in Attachment 4 - Waste in Place Summary Table.									
WIP Cumulative Total										

Overall in place volume 7,612,253 cubic yards

Method for determining waste composition, if known. Waste manifest at the scale house

Explain if closed landfills are included above Not included

Waste Summary by Landfill Section

Provide waste in place information for all landfill sections.

Number of landfill sections: 5 contiguous sections all in operation

Original* section used (years) from 1998 to 2019

Next* section used (years) from _____ to _____

Section Footprint 61.9 acres

Section Footprint _____ acres

Capped with approved final cover system Yes _____ No

Capped with approved final cover system Yes _____ No _____

Percent capped 0

Percent capped _____

Waste in Place: 6,698,783 Tons 7,612,253 Cubic Yards, if known

Waste in Place: _____ Tons _____ Cubic Yards, if known

* If there are additional landfill sections, phases or cells, please provide the same waste in place information on additional sheets and attach to form.

SECTION 11 - LANDFILL GAS

Does the landfill have a landfill gas collection & control system?

Yes No _____

If Yes: Active Passive _____

Number of gas wells: 53 gas wells and 39 horizontal collectors

Total landfill footprint acreage 61.9

Total landfill acreage from which gas is collected 61.9

Landfill sections from which gas is collected 1, 2, 3, 4, 5A, and 5B

Landfill acreage from which gas is collected for energy recovery 61.9

Measured Methane Generation Rate*, k 0.04

Measured Potential Methane Generation Capacity*, L_o 100 m³/Mg

NMOC Concentration* 384 ppmv as hexane

Does the landfill require a Title V Permit? Yes No _____

Name of Landfill Gas Recovery (gas to energy or other use) Facility: Hyland Landfill Gas to Energy Plant

* Note: If Concentration NMOC, L_o and k are not known or included, default values will be used to calculate the NMOCs emissions from the Landfill.

Flare

Open and Enclosed Flares located at the Landfill and the Landfill Gas Recovery Facility:

Number of Flares: 1 _____

Type of Flare: Opened Flare Enclosed Flare _____

Quantity of Gas Collected and Flared Annually 316,599,951 _____ cubic feet

Flare Hours of Operation per Year 7,183 _____ hours/year

Methane Percentage in Landfill Gas before flaring 44.8 %

Methane Destruction efficiency 98 %

Please report units in cubic feet

Candlestick Flares:

Number of Candlestick Flares _____

Estimate of Gas Flared Candlestick Flare _____ cubic feet

Gas To Energy

Number of Internal Combustion Engines: 3 _____

Quantity of Gas collected for Internal Combustion Engine Annually 808,261,905 _____ cubic feet

Methane Destruction efficiency 98 %

Methane Percentage in Landfill Gas before combustion 48.0 %

Utility Company Receiving Electricity RG&E _____

Please report units in cubic feet

Gas Processed for Use (Other than gas to electricity)

Quantity of Gas Collected for Processing _____ cubic feet

Methane Percentage in Landfill Gas before processing _____ %

On-site or Off-site User of Gas _____

Landfill Gas Recovery Facility/Landfill Data

Facility Contact Larry Shilling _____ Phone # (585) 466 - 7271 _____

Contact e-mail address larry.shilling@casella.com _____ Fax # () - _____

Operation and maintenance cost for calendar year: \$ _____

Does the LGRF experience shut downs: Yes _____ No _____

If yes, indicate reasons for shut downs. List required submissions that have been attached to this form or the reasons for not attaching a required piece of information:

Utility breaker trips, gas collection system repairs, requests by the utility to shut down the plant, facility maintenance, high oxygen trips, high vacuum trips, and parts replacement.

Year landfill opened: 1998 _____ Anticipated landfill closure date: 2031 _____

Results of Condensate Sampling

Submit (attached to this form) condensate quality monitoring results accomplished in accordance with condensate sampling. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

On-Site provided a tabulated compilation of the condensate quality data. Attachment 2 includes this information.

Landfill Gas Utilized For Energy Recovery

Provide the following information for the landfill gas recovered for energy. **DO NOT INCLUDE THE GAS FLARED!**

	Landfill Gas Collected for Energy Recovery (Cubic Feet)	Steam* Generated (Cubic Feet)	Total Electricity* Generated for onsite and offsite use (K.W.H.)	Total Gas Processed for use other than electricity generation (Cubic Feet)	Condensate Generated (Gallons)	Facility Operation (Hours)
January	58,317,486	N/A	3,055,000	N/A	Commingled	743
February	53,040,397	N/A	2,974,000	N/A	With	668
March	58,935,408	N/A	3,354,000	N/A	Leachate	744
April	58,973,256	N/A	3,221,000	N/A		696
May	61,389,722	N/A	3,257,000	N/A		705
June	74,346,043	N/A	3,319,000	N/A		718
July	71,056,659	N/A	3,320,000	N/A		730
August	69,691,280	N/A	3,187,000	N/A		726
September	73,390,345	N/A	3,206,000	N/A		714
October	77,346,507	N/A	3,321,000	N/A		744
November	74,218,128	N/A	3,120,000	N/A		718
December	77,556,674	N/A	3,263,000	N/A		744
ANNUAL TOTAL	808,261,905	N/A	38,597,000	N/A		8,650

* Provide where applicable.

Normal Weekdays of Operation 7 Normal Hours of Operation 24

Electricity Generated and used/marketed offsite 37,070,000 KWH

Electricity Generated and used onsite 1,527,000 KWH

Gas Processed and used/marketed offsite 0 cubic feet

Gas Processed and used onsite 0 cubic feet

Describe the collection, storage, treatment and disposal techniques used in managing the condensate:

Condensate generated in the landfill gas collection system is collected by condensate traps, knockout pots, and the leachate collection system. The condensate is then pumped to a lined surface impoundment where it is removed by a tanker truck and hauled to a waste treatment facility.

SECTION 12 - COST ESTIMATES AND FINANCIAL ASSURANCE DOCUMENTS

Are there required cost estimates and financial assurance documents for closure and post-closure care?

Yes No If yes, attach additional sheets reflecting annual adjustments for inflation and any changes to the Closure Plan?

Previously submitted to NYSDEC Region 9 and no changes are required.

SECTION 13 – PROBLEMS

Were any problems encountered during the reporting period (e.g., specific occurrences which have led to changes in facility procedures)?

Yes No If yes, attach additional sheets identifying each problem and the methods for resolution of the problem.

SECTION 14 – CHANGES

Were there any changes from approved reports, plans, specifications, and permit conditions?

Yes No If yes, attach additional sheets identifying changes with a justification for each change.

SECTION 15 – LANDFILL OPERATOR TRAINING

Name of trained landfill operator: Josh Haley

Name and location of training course: Landfill Operator Certification at Sheraton in Niagara Falls, NY

Date completed: 3/15/16

SECTION 16 - ANALYTICAL RESULTS

Submit (attached to this form) tables showing the sample collection date, the analytical results [including all peaks even if below the Method Detection Limits (MDL)], designation of upgradient wells and location number for each environmental monitoring point sampled, applicable water quality standards, and groundwater protection standards if established, MDL's, and Chemical Abstracts Service (CAS) numbers on all parameters. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

On-Site provided a compilation of the information required in Sections 16 through 21. Attachment 2 includes this information.

SECTION 17 - COMPARING DATA

Submit (attached to this form) tables or graphical representations comparing current water quality with existing water quality and with upgradient water quality. These comparisons may include Piper diagrams, Stiff diagrams, tables, or other analyses. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

On-Site provided a compilation of the information required in Sections 16 through 21. Attachment 2 includes this information.

SECTION 18 - DISCUSSION OF RESULTS

Submit (attached to this form) a summary of any contraventions of State water quality standards, significant increases in concentrations above existing water quality, any exceedances of groundwater protection standards, and discussion of results, and any proposed modifications to the sampling and analysis schedule necessary to meet the Existing, Operational and Contingency water quality monitoring requirements. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

On-Site provided a compilation of the information required in Sections 16 through 21. Attachment 2 includes this information.

SECTION 19 - DATA QUALITY ASSESSMENT

Submit (attached to this form) any required data quality assessment reports. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

On-Site provided a compilation of the information required in Sections 16 through 21. Attachment 2 includes this information.

SECTION 20 - SUMMARIES OF MONITORING DATA

Submit (attached to this form) a summary of the water quality information presented in Sections 16 and 17 for the year of operation for which the Annual Report is made, noting any changes in water quality which have occurred throughout the year. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

On-Site provided a compilation of the information required in Sections 16 through 21. Attachment 2 includes this information.

SECTION 21 - SURFACE IMPOUNDMENTS

Does this landfill have a surface impoundment?

Yes No If yes, repeat Sections 15 through 18 above for Quarterly Reports and Section 19 above for Annual report. Attach additional submissions required by this section.

This information is included in Attachment 2

SECTION 22 - PERMIT/CONSENT ORDER REPORTING REQUIREMENTS

Are there any additional permit/consent order reporting requirements not covered by the previous sections of this form?

Yes No If yes, attach additional sheets identifying the reporting requirements with their respective responses. See Attachment 5


SECTION 23 - SIGNATURE AND DATE BY OWNER OR OPERATOR

Owner or Operator must sign, date and submit one completed form to the appropriate Regional Office (See attachment for Regional Office addresses, email addresses and Materials Management Contacts).

The Owner or Operator must also submit one copy by email, fax or mail to:

**New York State Department of Environmental Conservation
Division of Materials Management
Bureau of Solid Waste Management
625 Broadway
Albany, New York 12233-7260
Fax 518-402-9041
Email address: SWMFannualreport@dec.ny.gov**

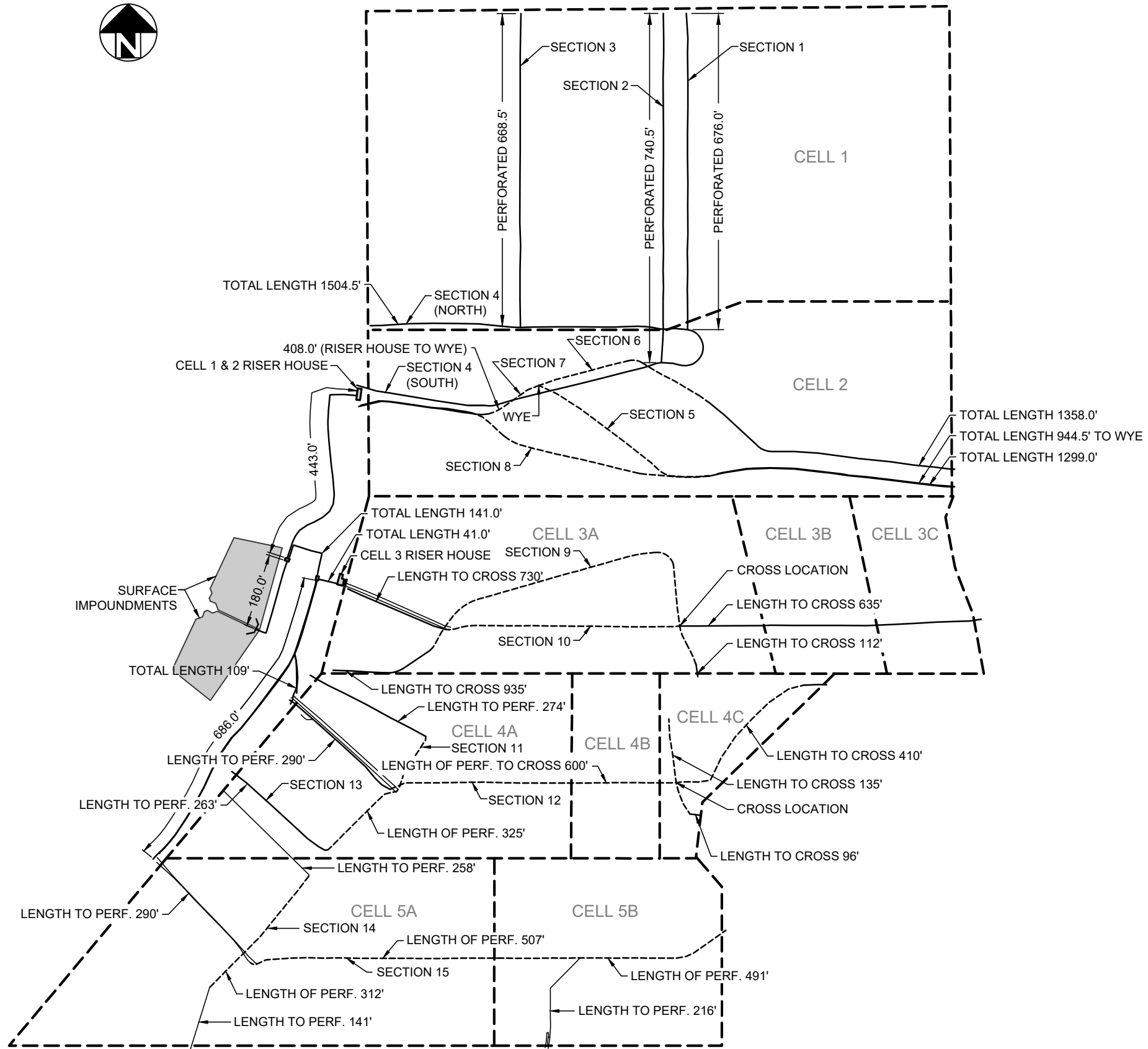
I certify, under penalty of law, that the data and other information identified in this report have been prepared under my direction and supervision in compliance with a system designed to ensure that qualified personnel properly and accurately gather and evaluate this information. I am aware that any false statement I make in such report is punishable pursuant to section 71-2703(2) of the Environmental Conservation Law and section 210.45 of the Penal Law.

 <hr style="border: 0; border-top: 1px solid black;"/> Signature	<hr style="border: 0; border-top: 1px solid black;"/> Date
<hr style="border: 0; border-top: 1px solid black;"/> Name (Print or Type)	<hr style="border: 0; border-top: 1px solid black;"/> Title (Print or Type)
<hr style="border: 0; border-top: 1px solid black;"/> Email (Print or Type)	
<hr style="border: 0; border-top: 1px solid black;"/> Address	<hr style="border: 0; border-top: 1px solid black;"/> City
<hr style="border: 0; border-top: 1px solid black;"/> State and Zip	() - _____ Phone Number

ATTACHMENTS: ___ YES ___ NO
(Please check appropriate line)

Reprinted (12/19)

ATTACHMENT 1 – LEACHATE LINE CLEANING LOGS

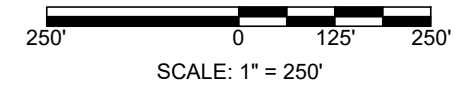


LEGEND

- CELL BOUNDARY
- SOLID LEACHATE PIPE
- - - - PERFORATED LEACHATE PIPE

NOTE:

- Leachate piping adapted from the following drawings prepared by B&R Surveying, P.L.L.C.
 - "Cell 3A Primary Leachate Collection System Record Plan dated" December 10, 2007
 - "Leachate Transfer System Record Plans" dated January 7, 2008
 - "Primary Leachate Collection Pipe Length Map" dated May 8, 2005
 - "Cell 3C Primary Leachate Collection Stone Record Plan" dated August 21, 2010.
 - "Cell 4A Exterior Leachate, Gas Collection and Conduit Record Plan" dated January 17, 2012.
 - "Cell 4A Primary Leachate Collection System Record Plan" dated January 12, 2012.
 - "Cell 4B Primary Leachate Collection System Record Plan" dated October 17, 2012.
 - "Cell 4C Primary Leachate Collection System Record Plan" dated November 10, 2014.
 - "Cell 5A Primary Leachate Collection System Record Plan" dated January 8, 2018.
 - Cell 5B Primary Leachate Collection System Record Plan" dated August 13, 2019.



NOTE:
UNAUTHORIZED ALTERATION OR ADDITION
TO ANY SURVEY, DRAWING, DESIGN,
SPECIFICATION, PLAN, OR REPORT IS A
VIOLATION OF SECTION 7209 PROVISION 2 OF
THE NEW YORK STATE EDUCATION LAW.



**ATTACHMENT 2 – FOURTH QUARTER/ANNUAL 2019 ENVIRONMENTAL MONITORING
REPORT**

Prepared For:
Hyland Facility Associates
6653 Herdman Road
Angelica, New York

Fourth Quarter/Annual 2019 Environmental Monitoring Report

Prepared by:
On-Site Geological Services, D.P.C.
72 Railroad Avenue
Wellsville, New York

February 2020

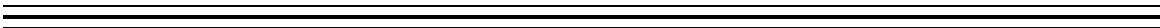


TABLE OF CONTENTS

1.0	OVERVIEW (NYSDEC SECTION 19 – SUMMARY OF MONITORING DATA)	1
1.1	<i>Summary of 2019 Monitoring Results</i>	1
2.0	PRIMARY LEACHATE (NYSDEC SECTION 3)	2
3.0	SECONDARY LEACHATE (NYSDEC SECTION 4)	3
4.0	RESULTS OF CONDENSATE SAMPLING (NYSDEC SECTION 11)	4
5.0	ANALYTICAL RESULTS (NYSDEC SECTION 15)	5
5.1	<i>Perimeter Gas Probe Monitoring</i>	6
6.0	COMPARING DATA (NYSDEC SECTION 16)	7
7.0	DISCUSSION OF RESULTS (NYSDEC SECTIONS 17)	8
7.1	<i>Bedrock Wells</i>	8
7.2	<i>Overburden Wells</i>	9
7.3	<i>Surface Water and Sediment</i>	10
7.4	<i>Groundwater Suppression System</i>	10
7.5	<i>Residential Sampling</i>	11
8.0	SURFACE IMPOUNDMENTS (NYSDEC SECTION 20)	12
9.0	DATA QUALITY ASSESSMENT (NYSDEC SECTION 18)	13

Tables

Table 1 – Current and Historic Leachate Analytical Results
Table 2 – Current and Historic Gas Condensate Analytical Results
Table 3 – Fourth Quarter 2019 Bedrock Analytical Results
Table 4 – Fourth Quarter 2019 Overburden Well Analytical Results
Table 5 – Fourth Quarter 2019 Surface Water Analytical Results
Table 6 – Fourth Quarter 2019 Groundwater Suppression Systems Analytical Results
Table 7 – Current and Historic Bedrock Well Analytical Results
Table 7A - MW-48 Analytical Results Compared to Intra-Well EWQVs
Table 8 – Current and Historic Overburden Well Analytical Results
Table 9 – Current and Historic Surface Water Analytical Results
Table 10 – Current and Historical Sediment Analytical Results
Table 11 – Current and Historic Groundwater Suppression System Analytical Results
Table 12 – 2019 Residential Water Supply Analytical Results
Table 13 – Fourth Quarter 2019 Field Duplicate Sample Comparison
Table 14 - Fourth Quarter 2019 Field Equipment Blank Analytical Results

TABLE OF CONTENTS CONTINUED

Figures

Figure 1 – Environmental Monitoring Locations

Figure 2 – 2019 Residential Sampling Locations

Appendix A – Field Sampling Forms

Appendix B – Laboratory Analytical Reports

1.0 OVERVIEW (NYSDEC SECTION 19 – SUMMARY OF MONITORING DATA)

This report is intended to satisfy the environmental monitoring portion of sections 3, 4, 11, and 15, through 20 of the New York State Department of Environmental Conservation (NYSDEC) Active Municipal Solid Waste Landfill annual report form, and is organized as follows.

- Section 2 - Primary Leachate (NYSDEC Section 3)
- Section 3 - Secondary Leachate (NYSDEC Section 4)
- Section 4 - Results of Condensate Sampling (NYSDEC Section 11)
- Section 5 - Analytical Results (NYSDEC Section 15)
- Section 6 - Comparing Data (NYSDEC Sections 16)
- Section 7 - Discussion of Results (NYSDEC Sections 17)
- Section 8 - Surface Impoundments (NYSDEC Section 20)
- Section 9 - Data Quality Assessment (NYSDEC Section 18)

Environmental monitoring is conducted in accordance with the *Hyland Facility Associates Landfill Expansion Operation and Maintenance Manual Appendix B Environmental Monitoring Plan*, dated December 2013 (EMP),

1.1 Summary of 2019 Monitoring Results

The table below summarizes the 2019 sampling events.

Quarter	Dates Sampled	Analysis ¹	Condensate Sampling	Leachate Sampling
1st	2/4–2/6/2019	Note ²	NR	Expanded ⁵
2nd	4/22-4/25/2019	Baseline ³	NR	NR
3rd	7/29-8/5/2019	Routine ⁴	Baseline ³	Expanded ⁵
4th	11/4-11/12/2019	Routine ⁴	NR	NR

1 - Typically includes sampling and analysis of monitoring wells, groundwater suppression systems, surface water and sediment samples. Fourth quarter also includes routine analysis of residential water supplies.

2 - Includes routine sampling and analysis of groundwater suppression systems. Surface water, sediment and operational monitoring wells not required during first quarter

3 - 6 NYCRR Part 360 Baseline Parameter List Analysis (baseline parameters)

4 - 6 NYCRR Part 360 Routine Parameter List Analysis (routine parameters)

5 - 6 NYCRR Part 360 Expanded Parameter List Analysis (expanded parameters)

NR - Not required

First Quarter 2019

In accordance with the approved Environmental Monitoring Plan (EMP), first quarter sampling was conducted for routine parameters at groundwater suppression systems (GSS-2 E/F and GSS-3 baseline parameters) and expanded parameters at primary leachate and secondary leachate locations.

During first quarter 2019 Groundwater Suppression samples GSS-1, GSS-2E/F, GSS-2G/H, GSS-3, GSS-4 and GSS-5 samples were collected between February 4 and 5, 2019. First quarter groundwater suppression system results are consistent with historic data and ambient

groundwater quality. Primary and secondary leachate samples were collected between February 4 and 6, 2019. Primary and secondary leachate results are further discussed in Section 2.

Second Quarter 2019

Second quarter 2019 baseline sampling and analysis was conducted as required with the following notable items. Monitoring well MW-48A, groundwater suppression GSS-4 and GSS-5 as well as surface water/sediment locations West Ditch and DB-2 were not sampled due to either dry conditions or insufficient water. The other scheduled sampling of groundwater, groundwater suppression systems and surface water was completed with results generally consistent with historic monitoring data.

Third Quarter 2019

Third quarter monitoring activities were completed in August 2019. Third quarter sampling was conducted for routine parameters for groundwater, surface water and groundwater suppression systems. Baseline parameters employed for condensate, groundwater suppression systems GSS-2 E/F and GSS-3. Expanded parameter sampling and analysis completed at primary leachate and secondary leachate locations.

Items of note are discussed below.

- Monitoring well MW-48A not sampled due to insufficient groundwater.
- Surface water / sediment locations East Perimeter Ditch, West Ditch, DB-1, DB-2 and groundwater suppression GSS-4 were not sampled due to dry conditions or insufficient water.
- Scheduled semi-annual expanded parameter sampling and analysis conducted at primary and secondary leachate locations occurred on July 31, 2019 with results discussed in Section 2.
- Third quarter 2019 analytical results are generally consistent with historic results.

Fourth Quarter 2019

The fourth quarter 2019 sampling event included routine parameter sampling and analysis of groundwater, surface water, groundwater suppression systems and eight residential water supply locations. Additionally groundwater suppression systems GSS-2 E/F and GSS-3 were sampled for baseline parameters. Monitoring well MW-48A, groundwater suppression GSS-4, as well as surface water/sediment locations East Ditch, West Ditch and DB-2 were not sampled due to insufficient water. Fourth quarter 2019 results are consistent with historic results. Details of the fourth quarter 2019 monitoring results are presented in Sections 5.0 through 9.0.

2.0 PRIMARY LEACHATE (NYSDEC SECTION 3)

In accordance with the EMP, primary leachate sampling is required semi-annually. Combined leachate sampling is conducted at the surface impoundments, which have been in operation since 2008.

The first and third quarter primary leachate samples were collected on February 6 and July 31, 2019, respectively. Analytical results for the primary leachate collection system samples from the last three leachate sampling events are presented in Table 1. Various inorganic compounds, organic compounds and wet chemistry parameters were detected at typical concentrations for primary leachate. Detected organic parameters from the first and third quarters 2019 primary leachate samples are typical of historic results and shown in the table below.

Parameter	PLCS 2/6/2019 (mg/L)	PLCS 7/31/2019 (mg/L)
2,4-Dimethylphenol	0.0085 J	
2-Butanone (MEK)	1.8 D	14 D
2-Hexanone	0.017 J	0.064 J
2-Methylnaphthalene	0.0023 J	0.0071 J
2-Methylphenol	0.018 J	0.081
3/4-Methylphenol	0.23	0.61 D
4-Methyl-2-pentanone	0.17 J	0.31 J
Acenaphthene		0.01 J
Acetone	2.8	11 D
Acetonitrile		0.27 J
Acetophenone	0.015 J	0.16
Benzyl alcohol		0.015 J
Dibenzofuran		0.0084 J
Ethyl benzene	0.0079 J	0.012 J
Fluorene		0.011 J
Isobutyl alcohol		2.1 J
m&p-Xylene	0.018 J	0.022 J
Naphthalene	0.0079 J	0.021 J
o-Toluidine	0.024	0.097
o-Xylene	0.0096 J	0.013 J
Phenanthrene	0.0039 J	0.015 J
Phenol	0.043	0.38
Toluene	0.042 J	0.024 J

J - Estimated D- Concentration is a result of dilution

3.0 SECONDARY LEACHATE (NYSDEC SECTION 4)

In accordance with the facility EMP, secondary leachate collection system sampling is required semi-annually and was conducted during the first and third quarters 2019. Analytical results for the first and third quarter 2019 secondary leachate samples are presented in Table 1.

The 2019 secondary leachate detected organics are presented in the tables below.

Parameter	First Quarter 2019 Secondary Leachate Organic Detects (mg/L)						
	SLCS-1 C/D 2/5/2019	SLCS-2 E/F 2/5/2019	SLCS-2 G/H 2/4/2019	SLCS-3 2/6/2019	SLCS-4 2/4/2019	SLCS-5 1/16/2019	SLCS-5 2/4/2019
2-Methylphenol		0.001 J					
3/4-Methylphenol		0.0014 J					
o-Toluidine		0.0045 J					
1,1-Dichloroethane			0.00034 J			0.00038 J	0.0003 J
1,2-Dichloroethane					0.00034 J	0.0058	0.0033 J
4-Methyl-2-pentanone						0.0019 J	
Acetone					0.0031 J		
Benzene			0.00071 J	0.002 J	0.00025 J		
Chloromethane	0.00028 J	0.016 J					0.0004 J
cis-1,2-Dichloroethene			0.00098 J			0.0017 J	

J - Estimated

Parameter	Third Quarter 2019 Secondary Leachate Organic Detects (mg/L)									
	LP1S 7/31/2019	LP1S 8/13/2019	LP2S 7/31/2019	SLCS-1 A/B 7/31/2019	SLCS-1 C/D 7/31/2019	SLCS-2 E/F 7/31/2019	SLCS-2 G/H 7/31/2019	SLCS-3 7/31/2019	SLCS-4 7/31/2019	SLCS-5 7/31/2019
1,1-Dichloroethane							0.00046 J			0.00034 J
1,2-Dichloroethane		0.0002 J							0.00023 J	0.0013 J
Acetone	0.0033 BJ	0.0043 BJ	0.003 BJ	0.0047 J	0.003 J		0.0034 J	0.017 J	0.0069 J	0.0031 BJ
Benzene							0.00085 J	0.0024 J	0.00027 J	
Chloroform								0.0016 J		
Chloromethane		0.00033 BJ		0.00049 BJ	0.0004 BJ	0.017 J	0.00044 BJ	0.002 BJ	0.00034 BJ	
cis-1,2-Dichloroethene							0.0016 J		0.00024 J	0.0011 J
Methylene chloride										0.00067 J
Iodomethane				0.0017 BJ	0.0016 BJ	0.077 J	0.0015 BJ		0.0015 BJ	

J/BJ - Estimated

4.0 RESULTS OF CONDENSATE SAMPLING (NYSDEC SECTION 11)

As required by landfill permit condition 57, condensate is required to be sampled and analyzed for baseline parameters quarterly for the first year of operation and annually thereafter. Therefore the current sampling frequency is annual. A landfill gas condensate sample was collected on August 5, 2019 and analyzed for baseline parameters. The sample was collected from the knock-out tank located north of Cell 1 and west of MW-19. The knock-out tank collects condensate from the gas header leading to the electrical cogeneration plant. Condensate results from the last four samplings are presented in Table 2. Third quarter 2019 gas condensate sample results are consistent with historic results. The detected organic parameters from the third quarter 2019 gas condensate samples are shown in the table below.

Parameter	Result mg/L
1,4-Dichlorobenzene	0.02 J
2-Butanone (MEK)	3.5
4-Methyl-2-pentanone	0.15 J
Acetone	4.5
Carbon disulfide	0.018 J
Chloroform	0.018 J
Ethyl benzene	0.049 J
m&p-Xylene	0.083 J
o-Xylene	0.043 J
Toluene	0.083 J

J – Estimated

5.0 ANALYTICAL RESULTS (NYSDEC SECTION 15)

The fourth quarter 2019 sampling of groundwater, surface water and groundwater suppression systems, was completed between November 4 and 12, 2019. Sampling was conducted by On-Site and laboratory analysis was performed by ALS Environmental, located in Rochester, New York. Field sampling forms are included as Appendix A. Tables presenting the fourth quarter 2019 field parameters and analytical results are included with the appropriate NYSDEC standards as follows:

- Table 3 – Fourth Quarter 2019 Bedrock Well Analytical Results;
- Table 4 – Fourth Quarter 2019 Overburden Well Analytical Results;
- Table 5 – Fourth Quarter 2019 Surface Water Analytical results; and
- Table 6 – Fourth Quarter 2019 Groundwater Suppression Analytical Results.

The fourth quarter 2019 sampling event included scheduled routine parameter analyses. Monitoring of groundwater, surface water, and groundwater suppression systems, was conducted at the locations and dates listed in the table below. Please see Figure 1 for sampling locations.

Bedrock Monitoring Wells	
MW-14	11/5/2019
MW-19	11/6/2019
MW-31	11/7/2019
MW-34	11/4/2019
MW-37	11/6/2019
MW-40	11/7/2019
MW-48	11/4/2019

Groundwater Suppression System	
GSS-1	11/5/2019
GSS-2 E/F	11/5/2019
GSS-2 G/H	11/5/2019
GSS-3	11/4/2019
GSS-4 ¹	11/4-7/2019
GSS-5	11/4/2019

Overburden Monitoring Wells	
MW-26	11/5/2019
MW-34A	11/5/2019
MW-36A	11/5-11/2019
MW-37A	11/5/2019
MW-40A	11/5-11/2019
MW-41A	11/5/2019
MW-42A	11/5-7/2019

Surface Water/Sediment	
East Perimeter Ditch ¹	11/11/2019
West Ditch ¹	11/11/2019
DB-1	11/7/2019
DB-2 ¹	11/11/2019
DB-3	11/11/2019

Overburden Monitoring Wells	
MW-45A	11/5/2019
MW-47A	11/6/2019
MW-48A ¹	11/12/2019

Notes:

1 - Insufficient water present, no sample collected

Prior to commencing groundwater purging and sampling activities, static water levels were measured at 17 monitoring wells that were scheduled for sampling. Static water level measurements and associated groundwater elevations are provided in the table below.

Well	Date Measured	Measuring Point Elevation (ft. amsl)	Depth to Water (ft.)	Groundwater Elevation (ft. amsl)
------	---------------	--------------------------------------	----------------------	----------------------------------

Bedrock Wells				
MW-14	11/4/2019	1970.41	38.50	1931.91
MW-19	11/6/2019	1937.2	44.84	1892.36
MW-31	11/7/2019	1952.78	13.81	1938.97
MW-34	11/4/2019	1849.27	150.09	1699.18
MW-37	11/6/2019	1885.18	33.80	1851.38
MW-40	11/7/2019	1918.35	48.35	1870.00
MW-48	11/4/2019	1861.36	155.69	1705.67

Overburden Wells				
MW-26	11/4/2019	1946.37	13.00	1933.37
MW-34A	11/4/2019	1849.22	92.27	1756.95
MW-36A	11/4/2019	1938.88	61.46	1877.42
MW-37A	11/4/2019	1885.79	31.92	1853.87
MW-40A	11/5/2019	1922.9	32.78	1890.12
MW-41A	11/5/2019	1916.83	54.94	1861.89
MW-42A	11/5/2019	1916.46	65.09	1851.37
MW-45A	11/4/2019	1850.38	86.95	1763.43
MW-47A	11/6/2019	1890.62	27.00	1863.62
MW-48A	11/4/2019	1861.32	>102.49	<1758.83

5.1 Perimeter Gas Probe Monitoring

Gas probe monitoring was conducted (as required by the EMP) on November 1, 2019 at 15 gas probes located around the perimeter of Cells 1 through 5 (Figure 1). Monitoring included pressure, methane and depth to water measurements using a GEM 2000 landfill gas meter and a Keck water level meter. Fourth quarter 2019 gas probe monitoring data is presented in the table below.

GAS PROBE	DATE	PRESSURE (IN-H₂O)	METHANE (%)	DTW (FT)
GP-1	11/1/2019	-0.23	0	20.47
GP-2	11/1/2019	-0.23	0	> 29.12
GP-3	11/1/2019	-0.23	0	7.83
GP-4	11/1/2019	-0.23	0	5.53
GP-5	11/1/2019	-0.23	0	30.71
GP-9	11/1/2019	-0.23	0	12.33
GP-10	11/1/2019	-0.23	0	21.24
GP-11	11/1/2019	-0.23	0	4.78
GP-12	11/1/2019	-0.23	0	8.74
GP-13	11/1/2019	-0.23	0	6.04
GP-14	11/1/2019	-0.23	0	13.69
GP-15	11/1/2019	-0.23	0	9.31
GP-17	11/1/2019	-0.23	0	27.98
GP-18	11/1/2019	-0.23	0	> 27.28
GP-19	11/1/2019	-0.23	0	> 35.88

Monitored by: Kevin Dye

Meter: GEM 2000 / Keck water meter

Weather: 39 degrees Cloudy, lite snow

6.0 COMPARING DATA (NYSDEC SECTION 16)

The current operational monitoring well network is presented in Figure 1. Site specific Existing Water Quality Values (EWQVs) have been established for the overburden and bedrock water bearing zones using pre-operational water quality data as required in 6 NYCRR Part 360. Starting with the third quarter 2008, EWQVs were revised to include pre-operational water quality data from Cell 3 monitoring wells. The pre-operational water quality dataset used includes analytical results from select Cell 1, 2 and 3 monitoring wells listed in the table below.

Bedrock Wells	Overburden Wells
MW-14	MW-26
MW-19	MW-36A
MW-31	MW-37A
MW-37	MW-38A
MW-38	MW-39A
MW-40	MW-40A
	MW-41A
	MW-47A

As defined by 6 NYCRR Part 360, a EWQV is the arithmetic mean for each parameter. These values were calculated by summing the test results of individual parameters for each well and

dividing by the number of times a test value was recorded. Standard deviations were also calculated from the same data set. The mean plus three standard deviations was calculated by adding three standard deviations to the calculated arithmetic mean for each parameter detected. The last column in each table lists the NYSDEC Class GA Water Quality Standards (Class GA Standards) included in NYSDEC Water Quality Regulations NYCRR Title 6, Chapter X Parts 700-705.

Two EWQVs are presented in Tables 7 and 8 for pre-operational water quality data values for inorganic parameters. The first value displayed is compared with operational metals data for samples having turbidity values less than 50 NTU. The second value displayed is compared with samples that have turbidities greater than 50 NTU.

Please see Tables 7 and 8 for a comparison of groundwater results to EWQVs and Class GA Standards. Additionally, Table 7A provides an intra-well EWQV comparison for monitoring well MW-48. Table 9 provides surface water data for the last five quarters. Table 10 provides sediment data for the last five quarters. Table 11 provides groundwater suppression system data for the last five quarters. A discussion of results is provided in Section 7.0 below.

7.0 DISCUSSION OF RESULTS (NYSDEC SECTIONS 17)

This section includes a narrative pertaining to results greater than EWQVs and/or NYSDEC water quality standards, significant changes in water quality and a general discussion of results. In general, analytical results are consistent with historic monitoring data and ambient water quality.

7.1 Bedrock Wells

Fourth Quarter 2019 routine parameter analyses of bedrock monitoring well groundwater samples are consistent with historic data and generally representative of ambient water quality. Fourth quarter 2019 bedrock well results are compared to EWQVs and Class GA Standards below.

- Upgradient well MW-14 results are within EWQVs and Class GA Standards.
- Upgradient well MW-19 exhibits typical results with Turbidity at 6.22 NTU and Iron at 0.43 B mg/L exceeding Class GA Standards, but remaining below EWQVs. Sodium at 16.4 mg/L exceeds the EWQV plus three standard deviations, but remains below Class GA Standard. The remaining results are within EWQVs and Class GA Standards.
- Upgradient well MW-31 exhibits Field pH at 6.2 S.U., which is outside the range of Class GA Standard. Chloride at 53.0 mg/L exceeds and EWQV plus three standard deviations. Remaining results remain within EWQVs and Class GA Standards.
- Downgradient well MW-34 sampling results show Total Phenolics at 0.0014 J exceeding the Class GA Standard. Sodium at 75.4 mg/L exceeds the Class GA Standard and EWQV plus three standard deviations. Remaining results are within EWQVs and Class GA Standards. Fourth quarter MW-34 results are consistent with historic results.
- At downgradient well MW-37, results are within EWQVs and Class GA Standards.

- Cell 5A downgradient well MW-48 exhibits Turbidity at 6.58 NTU and Total Phenolics at 0.0015 J mg/L, both exceeding the Class GA Standards but remaining below the EWQVs. Calcium at 158 mg/L, Magnesium at 48 mg/L and Hardness at 593 mg/L all exceed the EWQV plus three standard deviations. Sodium at 33.8 mg/L, Sulfate at 412 mg/L and Total Dissolved Solids (TDS) at 815 mg/L exceed the Class GA Standard and EWQV plus three standard deviations. An intra-well EWQV data set has been established for MW-48 as presented in Table 7A. Fourth quarter 2019 MW-48 results are within intra-well EWQVs.

7.2 Overburden Wells

Fourth quarter 2019 routine parameter analysis of groundwater from wells screened in overburden are consistent with historic data. Fourth quarter overburden wells analytical results are compared to EWQVs and Class GA Standards below.

- Upgradient well MW-26 exhibited Field pH at 6.48 S.U., Sodium at 60.1 mg/L and TDS at 804 mg/L. These results are not within Class GA Standards, but are inside EWQVs. Chemical Oxygen Demand (COD) and Chloride at concentrations of 23.2 mg/L and 99.5 mg/L, respectively, exceed EWQV plus three standard deviations, but remain below Class GA Standards. The remaining results are below EWQVs and Class GA Standards. Fourth quarter MW-26 results are consistent with historic data.
- During the fourth quarter 2019, MW-34A was bailed dry and recovered adequately to allow routine parameter sample collection over a span of two days. Fourth quarter 2019 sample results are within EWQVs and Class GA Standards with the following exceptions. Turbidity at 8.16 NTU, is above Class GA Standard, but remains below EWQV. Iron at 4.34 mg/L, Manganese at 1.97 mg/L, Sodium at 92.2 mg/L, Sulfate at 1350 mg/L and TDS at 2050 mg/L each exceed EWQVs and Class GA Standards. The remaining results are within EWQVs and Class GA Standards. Fourth quarter MW-34A results are typical of historic results.
- Upgradient well MW-36A exhibited Turbidity at 7.58 NTU, Sodium at 76.1 mg/L and Total Phenolics at 0.0015 BJ mg/L exceeding Class GA Standards, but remaining below EWQVs. Fourth quarter results show Sulfate at 1800 mg/L and TDS at 2990 mg/L, both exceeding EWQVs and Class GA Standards. Fourth quarter MW-36A results are consistent with historic data.
- Downgradient well MW-37A exhibits historically consistent results with Turbidity at 5.99 NTU, Sodium at 43.3 mg/L, Sulfate at 639 mg/L, TDS at 1270 mg/L and Total Phenolics at 0.0011 BJ mg/L. These results exceed Class GA Standards, but remain below EWQVs. Remaining results are below EWQV's and GA Standards.
- During the fourth quarter MW-45A was bailed dry and recovered adequately to allow routine parameter sample collection. Fourth quarter results show Turbidity at 17.8 NTU, Iron at 2.63 mg/L, Sulfate at 572 mg/L and TDS at 1110 mg/L exceeding Class GA Standards while remaining below the EWQVs. Fourth quarter results show Manganese at 1.85 mg/L and Sodium at 84 mg/L, both exceeding EWQVs and Class GA Standards.

Exceeding EWQVs plus three standard deviations, but remaining below Class GA Standards are BOD at 14.6 mg/L, COD at 47.7 mg/L and TOC at 15.9 mg/L. These results are consistent with historic data.

- Downgradient well MW-47A exhibited fourth quarter results consistent with historic data showing Iron at 1.25 mg/L, Sodium at 52.6 mg/L, Sulfate at 703 mg/L and TDS at 1230 mg/L exceeding Class GA Standards, but below EWQVs. Manganese at 1.48 mg/L exceeds Class GA Standard and the EWQV. The remaining results are below EWQVs and Class GA Standards.

7.3 Surface Water and Sediment

Fourth quarter 2019 surface water and sediment monitoring was conducted between November 7 and November 11, 2019. Surface water samples were collected at DB-1 and DB-3. Surface water locations DB-2, East Perimeter Ditch and West Ditch each had insufficient water and were therefore not sampled. Sediment was not observed at monitoring locations and therefore sediment samples were not collected. Fourth quarter 2019 surface water results are below Class C Standards. Fourth quarter 2019 surface water results are present in Table 5, while current and historic results are shown in Table 9. Table 10 presents historic sediment results.

7.4 Groundwater Suppression System

Fourth quarter groundwater suppression system monitoring was conducted between November 4 and 5, 2019 and included routine parameter sampling and analysis at GSS-1, GSS-2 G/H, GSS-5 and baseline parameter sampling at GSS-2 E/F and GSS-3. GSS-4 exhibited no flow, as is often observed, and was therefore not sampled.

Fourth quarter sampling results are generally consistent with historic results and are discussed below.

- Fourth quarter 2019 GSS-1 results show Turbidity at 21.0 NTU and Iron at 0.79 mg/L exceeding Class GA Standards. The remaining results are below Class GA Standards.
- GSS-2 E/F fourth quarter results remain below Class GA Standards with the exception of Manganese at 0.796 mg/L and Acetone at 0.0051 BJ mg/L. Acetone, also detected in laboratory blank, is likely a laboratory artifact. Other Volatile Organic Compound (VOC) detections include 4-Methyl-2-pentanone at 0.00049 mg/L and Chloromethane at 0.0003 mg/L.
- GSS-2 G/H fourth quarter results show exceedances of Class GA Standards for Turbidity at 7.68 NTU, Iron at 2.43 mg/L, Manganese at 0.979 mg/L, Sodium at 23.3 mg/L, Sulfate at 494 mg/L, TDS at 1090 mg/L and Total Phenolics at 0.0013 BJ mg/L as typical for this location.
- GSS-3 fourth quarter results show Magnesium at 0.919 mg/L and Acetone at 0.0052 BJ mg/L, which are both above Class GA Standards. Acetone is likely a laboratory artifact. Remaining GSS-3 results are below Class GA Standards and consistent with historic data and ambient groundwater quality. Other VOC detections include 2-Butanone (MEK)

at 0.0018 mg/L, 4-Methyl-2-pentanone at 0.00046 mg/L and Chloromethane at 0.00033 mg/L.

- Fourth quarter 2019 GSS-5 sampling represents the third sampling of this groundwater suppression system. Fourth quarter results remain below Class GA Standards
Fourth quarter 2019 groundwater suppression system analytical results are presented in Table 6 and Table 11 presents the current plus historic groundwater suppression system data.

7.5 Residential Sampling

Eight residential water supply locations were sampled for routine parameters as part of the fourth quarter 2019 monitoring event. Sampling locations are presented on Figure 2 and analytical results are tabulated in Table 12. This sampling included the regularly scheduled fourth quarter residential sampling as follows.

- Heath Gordon residence sample (H. Gordon House) was collected from a basement spigot.
- Shay residence water supply (Shay-Spring) was sampled at the spring located east of the house.
- The typical samplings at Elwin Gordon House and Gordon Camp were not conducted as directed by the resident.

Additional, non-typical residential water supply sampling was conducted during the fourth quarter 2019 as requested by residences as follows.

- Shay resident normally sampled at the spring was also sampled at a basement spigot that is plumbed post house filter system (Shay House Post Filter).
- Elwin Gordon Camp 2 (Gordon Camp 2) sample was collected from the kitchen sink cold water tap.
- Goodliff residence (Goodliff House) was sampled at the spring box located behind the house. This location requested to be included with scheduled future annual sampling.
- Goodliff trailer well (Goodliff Trailer Well) was sampled at an approximate 6 inch diameter well casing located behind a house trailer. The well is currently not used and water appeared stagnate.
- Hutchison house (Hutchison House) was collected from a basement spigot, reportedly prior to the house filtration system.
- Swineford residence sample (Swineford House) was collected from the bathroom cold water spigot.

Fourth quarter 2019 residential water supply results are within Class GA Standards, with the exceptions of certain Field Turbidity, Iron, Sodium and TDS results. These exceedances are generally consistent with ambient water quality and in certain locations may be influenced by

factors at the sampling location. The fourth quarter 2019 residential water supply Class GA exceedances are discussed below.

- Shay Spring shows Sodium at 23.4 mg/L, which is typical for this location and ambient water quality.
- Shay House Post Filter sample exhibits Sodium at 116 mg/L. This result may be influenced by the water filtration system.
- Gordon Camp 2 shows exceedances of Class GA Standards for Iron at 2.36 mg/L and Sodium at 22.3 mg/L. These results are consistent with ambient water quality.
- Goodliff Spring fourth quarter results shows Sodium at 32.5 mg/L, consistent with ambient water quality.
- Goodliff Trailer shows Turbidity at 15.2 NTU, Iron at 1.86 mg/L and Sodium at 39.8 mg/L. These results are generally typical of ambient water quality but are also likely influenced by the apparent stagnate water present in this currently non-operational well.
- Hutchison House sample results shows Iron at 1.41 mg/L, Sodium at 248 mg/L and TDS at 711 mg/L. This sampling location was reported by the resident to be prior to the house filtration system. Additional review of this sampling location should be conducted to further evaluate these data.

8.0 SURFACE IMPOUNDMENTS (NYSDEC SECTION 20)

This section includes a narrative pertaining to results greater than EWQVs and/or NYSDEC water quality standards, significant changes in water quality and a general discussion of results for monitoring wells that surround the leachate surface impoundments. Monitoring wells MW-40, MW-40A, MW-41A and MW-42A surround the impoundments and are designed to monitor groundwater in the immediate area. Fourth quarter 2019 surface impoundment monitoring well results are consistent with historic results with additional discussion provided below.

- Upgradient bedrock well MW-40 results are below EWQVs and Class GA Standards.
- Overburden upgradient well MW-40A results show Sodium at 58.2 mg/L exceeding the Class GA Standard but remaining below the EWQV. Sulfate at 1180 mg/L and TDS at 2000 mg/L exceed Class GA Standards and the EWQVs. Remaining results are within EWQVs and Class GA Standards.
- At downgradient overburden well MW-41A the Class GA Standard is exceeded, but not EWQV, by Total Phenolics at 0.0012 J mg/L. Sodium at 110 mg/L, Sulfate at 2330 mg/L and TDS at 3610 mg/L exceed EWQVs and Class GA Standards. The remaining results are below EWQVs and Class GA Standards. These results are consistent with historic data.
- Downgradient overburden well MW-42A results show Turbidity at 86.6 NTU exceeding Class GA Standard but within EWQV. Exceeding both EWQVs and Class GA Standards

are Iron at 5.61 mg/L, Sodium at 98.9 mg/L, Sulfate at 1950 mg/L and TDS at 3170 mg/L. Remaining results are below EWQVs and Class GA Standards.

9.0 DATA QUALITY ASSESSMENT (NYSDEC SECTION 18)

The fourth quarter 2019 sampling event included routine parameter sampling and analysis for groundwater, surface water and groundwater suppression systems. Samples were received by the laboratory in good condition within one day of sampling and within temperature requirements. Samples were generally analyzed within appropriate hold times and the laboratory reported no significant anomalies during analyses. Additional data quality control information is provided in the laboratory analytical reports located in Appendix B.

Duplicate Samples

A field duplicate sample was collected from monitoring well MW-34, labeled DUP1-1119 and analyzed by the laboratory for routine parameters. Results from MW-34 and the associated duplicate sample compare favorably indicating good sampling and analysis precision. Results are presented in Table 13.

Equipment Blank Sample

One field equipment blank sample was collected by pumping laboratory provided deionized water through the sampling pump and tubing. Sample EB1-1119 was collected from the bladder pump and tubing used to sample MW-19, MW-31, MW-40 and MW-47A. EB1-1119 was analyzed for routine parameters showing primarily non-detect results typical of deionized water. Equipment blank results are presented in Table 14.

Data Validation / Data Usability

Third party data validation was not required during the fourth quarter 2019 routine sampling event. Internal data validation was completed by ALS and is provided with the analytical reports included in Appendix B. The results presented in this report should be considered technically correct and usable.

Tables

Current and Historic (Last 4 Samplings) Leachate Analytical Results
Hyland Facility
Angelica, New York
(mg/L except where noted)

Parameter	Primary Leachate Collection System (PLCS)				Leachate Ponds Secondary Collection System								Cell 1 A/B Secondary Leachate Collection				Cell 1 C/D Secondary Leachate Collection			
					North Pond (LP-1S)				South Pond (LP-2S)											
	2/8/2018	8/1/2018	2/6/2019	7/31/2019	2/8/2018	8/1/2018	2/6/2019	7/31/2019	8/13/2019	2/8/2018	8/1/2018	2/6/2019	7/31/2019	2/5/2018	8/1/2018	2/5/2019	7/31/2019	2/5/2018	2/5/2019	7/31/2019

Volatile Organic Compounds (con't)

Dibromochloromethane	0.13 U	0.13 U	0.13 U	0.25 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Dibromomethane	0.13 U	0.13 U	0.13 U	0.25 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Dichlorodifluoromethane	0.13 U	0.13 U	0.13 U	0.25 U	0.005 U	0.005 U	0.005 U	0.005 U		0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Dichloromethane (Methylene chloride)	0.13 U	0.13 U	0.13 U	0.25 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Ethyl benzene	0.13 U	0.0062 J	0.0079 J	0.012 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Ethyl methacrylate	0.25 U	0.25 U	0.25 U	0.5 U	0.01 U	0.01 U	0.01 U	0.01 U		0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Iodomethane	0.25 U	0.25 U	0.25 U	0.5 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0017 BJ	0.01 U	0.01 U	0.0016 BJ	0.01 U
Isobutyl alcohol	2.5 U	2.5 U	2.5 U	2.1 J	0.1 U	0.1 U	0.1 U	0.1 U		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
m&p-Xylene	0.13 U	0.014 J	0.018 J	0.022 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Methacrylonitrile	0.5 U	0.5 U	0.5 U	1 U	0.02 U	0.02 U	0.02 U	0.02 U		0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Methyl methacrylate	0.25 U	0.25 U	0.25 U	0.5 U	0.01 U	0.01 U	0.01 U	0.01 U		0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
o-Xylene	0.0054 J	0.0067 J	0.0096 J	0.013 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Phenol	0.01 J	0.022 *	0.043	0.38	0.0094 U	0.01 U	0.0094 U	0.0093 U		0.0094 U	0.01 U	0.0094 U	0.0097 U	0.0094 U	0.01 U	0.0094 U	0.0093 U	0.0094 U	0.0094 U	0.0093 U	0.01 U
Propionitrile	2.5 U	2.5 U	2.5 U	5 U	0.1 U	0.1 U	0.1 U	0.1 U		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Styrene	0.13 U	0.13 U	0.13 U	0.25 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Tetrachloroethene	0.13 U	0.13 U	0.13 U	0.25 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Toluene	0.0064 J	0.018 J	0.042 J	0.024 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
trans-1,2-Dichloroethene	0.13 U	0.13 U	0.13 U	0.25 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
trans-1,3-Dichloropropene	0.13 U	0.13 U	0.13 U	0.25 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
trans-1,4-Dichloro-2-butene	0.13 U	0.13 U	0.13 U	0.25 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Trichloroethene	0.13 U	0.13 U	0.13 U	0.25 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Trichlorofluoromethane	0.13 U	0.13 U	0.13 U	0.25 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Vinyl acetate	0.25 U	0.25 U	0.25 U	0.5 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.25 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
1,2,4-Trichlorobenzene	0.028 U	0.01 U,*	0.019 U	0.047 U	0.0094 U	0.01 U	0.0094 U	0.0093 U		0.0094 U	0.01 U	0.0094 U	0.0097 U	0.0094 U	0.01 U	0.0094 U	0.0093 U	0.0094 U	0.0094 U	0.0093 U	0.01 U
Hexachlorobutadiene	0.028 U	0.01 U,*	0.019 U	0.047 U	0.0094 U	0.01 U	0.0094 U	0.0093 U		0.0094 U	0.01 U	0.0094 U	0.0097 U	0.0094 U	0.01 U	0.0094 U	0.0093 U	0.0094 U	0.0094 U	0.0093 U	0.01 U
Naphthalene	0.01 J	0.014 *	0.0079 J	0.021 J	0.0094 U	0.01 U	0.0094 U	0.0093 U		0.0094 U	0.01 U	0.0094 U	0.0097 U	0.0094 U	0.01 U	0.0094 U	0.0093 U	0.0094 U	0.0094 U	0.0093 U	0.01 U

Wet Chemistry

Alkalinity	5950	3870	5730	4720	404	559	384	410	396 *	328	449	376	441	517	711	473	498	504	392	395	644
Ammonia Nitrogen	1130	702	1890	1160	0.214	0.195	0.059	0.139	0.177	0.05 U	0.05 U	0.05 U	0.018 J	0.05 U	0.011 J	0.05 U	0.05 U	0.077	0.05 U	0.05 U	0.05 U
Biochemical Oxygen Demand	193	448	449	573	2 U	2 U	3	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromide	21.7	14.3	17.8	14.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chemical Oxygen Demand	2890	2080	3280	2820	13.1	5.8	15.9	6	11.5	11.8	5 U	12.4	5 U	13.1	5 U	7.5	5 U	7.5	9.1	5 U	5 U
Chloride	3620	2120	3210	2610	14.4	17	17	16.2	15.4	38.5	33.6	23.7	18.6	1.4 J	1.6 J	2.9	1.1 J	2.2	3	3.5	2.7
Color (True) (C.U.)	3600	5250	6000	3500	15	37	12	20	30	10	18	10	18	16	13	10	13	14	5	10	14
Cyanide	0.03 J	0.1 U	0.1 U	0.1 U	0.002 J	0.01 U	0.01 U	0.005 U	0.0046 J	0.002 J	0.01 U	0.01 U	0.005 U	0.01 U	0.01 U	0.01 U	0.005 U	0.01 U	0.01 U	0.005 U	0.01 U
Hardness	790	851	845	459	627	599	622	605	579	425	467	467	534	548	482	531	538	651	690	859	586
Nitrate Nitrogen	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	2.1	1.8	1.1	0.8 J	1 U	0.4 J	1 U	1 U	0.6 J	0.5 J	0.5 J	0.9 J
pH of Color Analysis	7.99	8.01 *	8.13 *	7.92 *	7.5	7.86 *	7.61 *	7.72 *	7.32	7.71	7.79 *	7.87 *	7.58 *	7.37 *	7.72 *	7.38	7.49 *	7.12 *	7.35	7.79 *	7.78 *
Phosphorus		4.76	5.91	5.9																	
Sulfate	89.8	1.6 J	14	93	172	177	150	144	135	48.3	55.8	55.6	51.4	12.3	28.6	18	24.5	117	287	452	166
Sulfide	5 U	5 U	5	4 U	0.98 U	0.22 J	0.17 J	0.96 U		0.97 U	0.38 J	0.34 J	0.97 U	0.98 U	2.56	0.24 J	0.97 U	0.96 U	0.2 J	0.33 J	1.26
Total Dissolved Solids	8800	5470	8680	6980 *	680	702	673	693 *	672	477	529	519	593 *	527	496	523	574 *	662	884	1160 *	660
Total Kjeldahl Nitrogen	1180	785	1240	1130	0.5	0.67 B	0.44	0.35	0.58	0.3	0.35 B	0.3	0.24	0.11 J	0.17 BJ	0.09 J	0.12 J	0.09 J	0.1 J	0.2 U	0.17 BJ
Total Organic Carbon (TOC)	953	876	930	830	4.6	4.4	4.1	3.4	3.9	3.2	2.6	2.5	2.4	5	2.4	2.4	2.1	3.1	3.4	2.8	2.4
Total Phenolics	2.14	1.42	0.47	1.84	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0038 J	0.0026 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Total Suspended Solids	49.7	53	17.1	9.7	1.3	2.5	1.1	1.7		11.6	6.1	8.3	14.3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.1

Table 2

Current and Historic Gas Condensate Analytical Results
Hyland, Facility
Angelica, New York
(mg/L except where noted)

Parameter	Condensate				
	8/6/2015	8/11/2016	8/17/2017	8/20/2018	8/5/2019

Field Parameters

Field pH (std. units)	6.5	7.41	7.54	7.74	7.49
ORP (mV)	-311.8	-202.8	-233.4	-248.9	-208.8
Specific Conductivity (us/cm)	10034	8127	6577	9118	6424
Temperature (deg. C)	16.6	20.4	24.6	24.1	26.7
Turbidity (NTU)	> 1000	144	1000 >	454	538.1

Inorganic Compounds

Aluminum	10.9	1.95	35.2	7.65	5.87
Antimony	0.105 J	0.0597 J	0.0288 J	0.0882	0.0562 J
Arsenic	0.195	0.13	0.116	0.261 E	0.167
Barium	0.177	0.0766	0.461	0.33	0.139
Beryllium	0.000775 U	0.00012 U	0.0016 J	0.0004 J	0.0004 J
Boron	2.02	0.0075 U	0.2 U	0.0185 J	0.2 U
Cadmium	0.000845 U	0.0005 J	0.005 U	0.005 U	0.005 U
Calcium	15.2	2.64	7.22	4.07	2.03
Chromium	0.0478 J	0.0064 J	0.0486	0.013	0.0099 J
Chromium, hexavalent	0.1 U	0.065	0.01 U	0.1 U	0.1 U,*
Cobalt	0.0027 U	0.0017 J	0.0227 J	0.0059 J	0.0052 J
Copper	0.0763 J	0.0153 J	0.0728	0.0225	0.0168 J
Iron	27.5	6.55	60.1	13.8	10.6
Lead	0.0245 J	0.01 J	0.0499 J	0.0121 J	0.0094 J
Magnesium	17.1	0.747 J	8.92	2.42	1.69
Manganese	0.253	0.0914	0.939	0.27	0.181
Mercury	0.0011	0.0022	0.0083	0.0076	0.0209
Nickel	0.0469 J	0.0053 J	0.0513	0.0076 J	0.005 J
Potassium	50.2	0.391 J	7.42	1.56 J	1.65 J
Selenium	0.0211 J	0.0033 U	0.01 U	0.01 U	0.01 U
Silver	0.0044 J	0.000463 U	0.01 U	0.01 U	0.01 U
Sodium	177	0.113 J	0.838 J	0.356 J	0.273 J
Thallium	0.0107 U	0.0021 U	0.01 U	0.01 U	0.01 U
Vanadium	0.0174 J	0.0035 J	0.0566	0.0143 J	0.0106 J
Zinc	1.89	0.158 E	0.55	0.681	0.287

Volatile Organic Compounds

1,1,1,2-Tetrachloroethane	0.25 U	0.25 U	0.25 U	0.13 U	0.25 U
1,1,1-Trichloroethane	0.25 U	0.25 U	0.25 U	0.13 U	0.25 U
1,1,2,2-Tetrachloroethane	0.25 U	0.25 U	0.25 U	0.13 U	0.25 U
1,1,2-Trichloroethane	0.25 U	0.25 U	0.25 U	0.13 U	0.25 U
1,1-Dichloroethane	0.25 U	0.25 U	0.25 U	0.13 U	0.25 U
1,1-Dichloroethene	0.25 U	0.25 U	0.25 U	0.13 U	0.25 U
1,2,3-Trichloropropane	0.25 U	0.25 U	0.25 U	0.13 U	0.25 U
1,2-Dibromo-3-chloropropane	0.25 U	0.25 U	0.25 U	0.13 U	0.25 U
1,2-Dibromoethane	0.25 U	0.25 U	0.25 U	0.13 U	0.25 U
1,2-Dichlorobenzene	0.029 J	0.25 U	0.25 U	0.13 U	0.25 U
1,2-Dichloroethane	0.25 U	0.25 U	0.25 U	0.13 U	0.25 U
1,2-Dichloropropane	0.25 U	0.25 U	0.25 U	0.13 U	0.25 U
1,4-Dichlorobenzene	0.92	0.059 J	0.022 J	0.021 J	0.02 J
2-Butanone (MEK)	2.7	6.5	5.6	5	3.5
2-Hexanone	0.5 U	0.5 U	0.5 U	0.028 J	0.5 U
4-Methyl-2-pentanone	0.18 J	0.15 J	0.19 J	0.16 J	0.15 J
Acetone	3	3	4.4	4.4	4.5
Acrylonitrile	5 U	5 U	5 U	2.5 U	5 U

Table 2

Current and Historic Gas Condensate Analytical Results
Hyland, Facility
Angelica, New York
(mg/L except where noted)

Parameter	Condensate				
	8/6/2015	8/11/2016	8/17/2017	8/20/2018	8/5/2019

Volatile Organic Compounds (con't)

Benzene	0.25 U	0.018 J	0.01 J	0.0088 J	0.25 U
Bromochloromethane	0.25 U	0.25 U	0.25 U	0.13 U	0.25 U
Bromodichloromethane	0.25 U	0.25 U	0.25 U	0.13 U	0.25 U
Bromoform	0.25 U	0.25 U	0.25 U	0.13 U	0.25 U
Bromomethane	0.25 U	0.25 U	0.25 U	0.13 U	0.25 U
Carbon disulfide	0.067 J	0.5 U	0.5 U	0.01 J	0.018 J
Carbon tetrachloride	0.25 U	0.25 U	0.25 U	0.13 U	0.25 U
Chlorobenzene	0.02 J	0.25 U	0.25 U	0.13 U	0.25 U
Chloroethane	0.25 U	0.25 U	0.25 U	0.13 U	0.25 U
Chloroform	0.25 U	0.25 U	0.25 U	0.13 U	0.018 J
Chloromethane	0.25 U	0.25 U	0.25 U	0.13 U	0.25 U
cis-1,2-Dichloroethene	0.25 U	0.25 U	0.25 U	0.13 U	0.25 U
cis-1,3-Dichloropropene	0.25 U	0.25 U	0.25 U	0.13 U	0.25 U
Dibromochloromethane	0.25 U	0.25 U	0.25 U	0.13 U	0.25 U
Dibromomethane	0.25 U	0.25 U	0.25 U	0.13 U	0.25 U
Dichloromethane (Methylene chloride)	0.25 U	0.25 U	0.042 J	0.13 U	0.25 U
Ethyl benzene	1.2	0.079 J	0.041 J	0.041 J	0.049 J
Iodomethane	0.5 U	0.5 U	0.5 U	0.25 U	0.5 U
m&p-Xylene	2.7	0.13 J	0.07 J	0.078 J	0.083 J
o-Xylene	1.3	0.066 J	0.035 J	0.035 J	0.043 J
Styrene	0.17 J	0.011 J	0.011 J	0.0094 J	0.25 U
Tetrachloroethene	0.052 J	0.25 U	0.25 U	0.13 U	0.25 U
Toluene	0.85	0.12 J	0.077 J	0.075 J	0.083 J
trans-1,2-Dichloroethene	0.25 U	0.25 U	0.25 U	0.13 U	0.25 U
trans-1,3-Dichloropropene	0.25 U	0.25 U	0.25 U	0.13 U	0.25 U
trans-1,4-Dichloro-2-butene	0.25 U	0.25 U	0.25 U	0.13 U	0.25 U
Trichloroethene	0.014 J	0.25 U	0.25 U	0.13 U	0.25 U
Trichlorofluoromethane	0.25 U	0.25 U	0.25 U	0.13 U	0.25 U
Vinyl acetate	0.5 U	0.5 U	0.5 U	0.25 U	0.5 U
Vinyl chloride	0.25 U	0.25 U	0.25 U	0.13 U	0.25 U

Wet Chemistry

Alkalinity	4380	4330	3620	4920	2950
Ammonia Nitrogen	13.9	1150	1140	1850	996
Biochemical Oxygen Demand	44900	2620	1440	2630 *	657
Bromide	0.4 J	1 U	1 U	1 U	1 U
Chemical Oxygen Demand	3160	1730	1000	4040	1590
Chloride	138	2 U	2 U	2 U	1.3 J
Color (True) (C.U.)	1100	100	40	280	35
Cyanide	0.1 U	0.002 J	0.01 U	0.01 U	0.005 U
Hardness	108	9.67	54.8	20.1	12
Nitrate Nitrogen	1 U	1 U	1 U	1 U	1 U
pH of Color Analysis	7.883 *	7.937	8.2 *	8.16	8.03
Sulfate	209	3.5	4.4	73.5	135
Total Dissolved Solids	642	77 U	26	135	288
Total Kjeldahl Nitrogen	1430	1150	1040	1470	999
Total Organic Carbon (TOC)	141	205	320	65	22.9
Total Phenolics	2.79	4.61	9.18	4.95	5.87

Notes:

U - Concentration not detected at specified detection limit

J/UJ - Estimated value

* - Denotes analysis was performed outside holding time.

E - Concentration is estimated due to serial dilution was outside control limits.

Table 3

Fourth Quarter 2019 Bedrock Well Analytical Results
Hyland Facility
Angelica, New York
(mg/L except where noted)

Parameter	MW-14 11/5/2019	MW-19 11/6/2019	MW-31 11/7/2019	MW-34 11/4/2019	MW-37 11/6/2019	MW-40 11/7/2019	MW-48 11/4/2019	Class GA Standard
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Filed Parameters

Depth to Groundwater (ft)	38.5	44.84	13.81	150.09	33.8	48.35	155.69	
Dissolved Oxygen		7.18	5.7	1.29	1.58	3.09	2.93	
Field pH (std. units)	7.61	6.73	6.2	7.34	7.4	7.38	7.11	6.5 - 8.5
ORP (mV)	144.4	113.7	183.7	-70.9	126.7	153.7	67.6	
Specific Conductivity (us/cm)	311.1	501	420.5	591.5	479.3	440.9	93.4	
Temperature (deg. C)	9.9	6.3	4.9	7.3	11.5	7.4	8.7	
Turbidity (NTU)	1.8	6.22	0.86	0.46	1.11	4.49	6.58	5

Inorganic Compounds

Cadmium	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005
Calcium	42.8	65.7	53.5	49.4	67.1	48.4	158	
Iron	0.03 J	0.43 B	0.06 BJ	0.2	0.06 BJ	0.24 B	0.27	0.3
Lead	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.025
Magnesium	10.9	23.2	12.5	14.7	22.6	27.4	48	
Manganese	0.01 U	0.028	0.01 U	0.137	0.01 U	0.006 J	0.043	0.3
Potassium	1.9 J	3.5	1.8 J	1.3 J	2.3	2.9	3.6	
Sodium	3.4	16.4	11.6	75.4	7.5	9.5	33.8	20

General Chemistry

Alkalinity	139	217	91.2	236	213	187	215	
Ammonia Nitrogen	0.05 U	0.05 U	0.05 U	0.318	0.05 U	0.05 U	0.05 U	2
Biochemical Oxygen Demand	2 U	2 U	2 U	2 U	2 U	2 U	2 U	
Bromide	1 U	1 U	1 U	1 U	1 U	1 U	1 U	
Chemical Oxygen Demand	3.9 J	5 U	5 U	5 U	5 U	5 U	5 U	
Chloride	2.7	23.5	53	21.3	11.6	10.9	15	250
Hardness	152	260	185	184	261	234	593	
Nitrate Nitrogen	1 U	0.7 J	0.6 J	1 U	1 U	1 U	1 U	10
Sulfate	19.8	29.4	56.2	64.8	44.5	48.8	412	250
Total Dissolved Solids	193	310	256	384	307	284	815	500
Total Kjeldahl Nitrogen	0.2 U	0.2 U	0.2 U	0.29	0.2 U	0.2 U	0.2 U	
Total Organic Carbon (TOC)	1 U	1.2	1 U	1 U	1 U	1 U	0.7 J	
Total Phenolics	0.005 U	0.005 U	0.005 U	0.0014 J	0.005 U	0.005 U	0.0015 J	0.001

Notes:

Class GA Standard - NYSDEC Class GA Groundwater Standard

Concentrations in **bold** exceed Class GA Standards.

U - Concentration not detected at specified detection limit

J - Estimated value

Table 4

Fourth Quarter 2019 Overburden Well Analytical Results
Hyland Facility
Angelica, New York
(mg/L except where noted)

Parameter	MW-26 11/5/2019	MW-34A 11/5/2019	MW-36A 11/5-11/2019	MW-37A 11/5/2019	MW-40A 11/5-11/2019	MW-41A 11/5/2019	MW-42A 11/5-7/2019	MW-45A 11/5/2019	MW-47A 11/6/2019	Class GA Standard
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Field Parameters

Depth to Groundwater (ft)	13	92.27	61.46	31.92	32.78	54.94	65.09	86.95	27	
Dissolved Oxygen									0.56	
Field pH (std. units)	6.48	7.18	6.95	7.12	6.69	6.86	7	7.17	7.17	6.5 - 8.5
ORP (mV)	178.3	-43.7	113.5	80.7	183.1	173.2	161.1	19.4	-101.1	
Specific Conductivity (us/cm)	1138	2195	2874	1491	2115	3334	3013	1137	1445	
Temperature (deg. C)	13.1	9.3	9.6	11.9	12.8	13.7	10.8	8.9	8.9	
Turbidity (NTU)	3.68	8.16	7.58	5.99	1.45	4.52	86.6	17.8	1.88	5

Inorganic Compounds

Cadmium	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005
Calcium	167	333	473	217	298	554	514	189	208	
Iron	0.13	4.34	0.3	0.2	0.05 J	0.19	5.61	2.63	1.25	0.3
Lead	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.025
Magnesium	41.7	113	199	85.5	160	251	192	45.3	72.5	
Manganese	0.006 J	1.97	0.016	0.023	0.007 J	0.013	0.261	1.85	1.48	0.3
Potassium	1.9 J	12.4	11.7	12	9.3	13.2	17.9	9.2	6.1	
Sodium	60.1	92.2	76.1	43.3	58.2	110	98.9	84	52.6	20

General Chemistry

Alkalinity	379	224	406	353	379	365	364	232	246	
Ammonia Nitrogen	0.05 U	0.182	0.05 U	0.05 U	0.006 J	0.05 U	0.05 U	0.262	0.18	2
Biochemical Oxygen Demand	2 U	2.4	2 U	2 U	2 U	2 U	2 U	14.6	2	
Bromide	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	
Chemical Oxygen Demand	23.2	12.2	6.7	6.3	4.2 J	7.7	4.2 J	47.7	4.9 J	
Chloride	99.5	2.7	3	1.7 J	3.6	3.4	3.9	12.6	3.1	250
Hardness	588	1300	2000	894	1400	2420	2080	658	819	
Nitrate Nitrogen	0.7 J	0.4 J	1 U	1 U	0.3 J	0.6 J	0.4 J	0.4 J	0.4 J	10
Sulfate	165	1350	1800	639	1180	2330	1950	572	703	250
Total Dissolved Solids	804	2050	2990	1270	2000	3610	3170	1110	1230	500
Total Kjeldahl Nitrogen	0.45	0.32	0.2 U	0.2 U	0.22	0.11 J	0.18 J	0.44	0.31	
Total Organic Carbon (TOC)	8	3.7	2	1.1	1 J	2.1	1.1	15.9	1.6	
Total Phenolics	0.005 U	0.005 U	0.0015 BJ	0.0011 BJ	0.005 U	0.0012 J	0.005 U	0.005 U	0.005 U	0.001

Notes:

Class GA Standard - NYSDEC Class GA Groundwater Standard

Concentrations in **bold** exceed Class GA Standards.

U - Concentration not detected at specified detection limit

J/BJ - Estimated value

Table 5

**Fourth Quarter 2019 Surface Water Analytical Results
Hyland Facility
Angelica, New York
(mg/L except where noted)**

Parameter	DB-1 11/7/2019	DB-3 11/11/2019	Class C Standard
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Field Parameters

Dissolved Oxygen	8.56	13.27	Not < 5
Field pH (std. units)	7.68	7.51	6.5 - 8.5
ORP (mV)	156.1	98.7	
Specific Conductivity (us/cm)	203.5	290.3	
Temperature (deg. C)	6	3.3	
Turbidity (NTU)	172	83.4	

Inorganic Compounds

Cadmium	0.005 U	0.005 U	
Calcium	30.6	42.3	
Iron	8.95	4.33	
Lead	0.005 J	0.05 U	0.008
Magnesium	6.4	10.3	
Manganese	0.221	0.129	
Potassium	7.6	5.7	
Sodium	3.2	3.8	

General Chemistry

Alkalinity	76.4	92	
Ammonia Nitrogen	0.17	0.107	2
Biochemical Oxygen Demand	2 U	2 U	
Bromide	1 U	1 U	
Chemical Oxygen Demand	9.8	11.5	
Chloride	4.9	4.9	
Hardness	103	148	
Nitrate Nitrogen	0.6 J	0.7 J	
Sulfate	18.7	55.6	
Total Dissolved Solids	203	227	500
Total Kjeldahl Nitrogen	0.77	0.62	
Total Organic Carbon (TOC)	2.8	3.2	
Total Phenolics	0.005 U	0.0016 J	

Notes:

Class C Standard - NYSDEC Class C Surface Water Standard
Concentrations are within Class C Standards.

U - Concentration not detected at specified detection limit

Table 6

Fourth Quarter 2019 Groundwater Suppression System Analytical Results
Hyland Facility
Angelica, New York
(mg/L except where noted)

Parameter	GSS-1 11/5/2019	GSS-2 E/F 11/5/2019	GSS-2 G/H 11/5/2019	GSS-3 11/4/2019	GSS-5 11/4/2019	Class GA Standard
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Field Parameters

Field pH (std. units)	7.03	7.16	6.84	6.91	7.43	6.5 - 8.5
ORP (mV)	111.3	55.1	-18.5	28.6	107.6	
Specific Conductivity (us/cm)	378.5	608	1297	670	469.5	
Temperature (deg. C)	22.4	24.5	20.4	16.2	16	
Turbidity (NTU)	21	0.69	7.68	0.47	3.68	5

Inorganic Compounds

Aluminum		0.0417 J		0.031 J		
Antimony		0.06 U		0.06 U		0.003
Arsenic		0.01 U		0.0174		0.025
Barium		0.0601		0.0833		1
Beryllium		0.003 U		0.003 U		
Boron		0.0535 J		0.0912 J		1
Cadmium	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005
Calcium	54.8	83.9	177	94.5	66.5	
Chromium		0.01 U		0.01 U		0.05
Chromium, hexavalent		0.01 U,*		0.01 U,*		
Cobalt		0.05 U		0.05 U		
Copper		0.02 U		0.02 U		0.2
Iron	0.79	0.109	2.43	0.278	0.14	0.3
Lead	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.025
Magnesium	10.5	23.7	83.2	34.7	22	
Manganese	0.025	0.796	0.979	0.919	0.178	0.3
Mercury		0.0002 U		0.0002 U		0.0007
Nickel		0.04 U		0.04 U		0.1
Potassium	3.3	3.36	8	5.65	2.8	
Selenium		0.01 U		0.01 U		0.01
Silver		0.01 U		0.01 U		0.05
Sodium	5.8	7.39	23.3	10.7	9.3	20
Thallium		0.01 U		0.01 U		
Vanadium		0.05 U		0.05 U		
Zinc		0.02 U		0.02 U		

Volatile Organic Compounds

1,1,1,2-Tetrachloroethane		0.005 U		0.005 U		0.005
1,1,1-Trichloroethane		0.005 U		0.005 U		0.005
1,1,2,2-Tetrachloroethane		0.005 U		0.005 U		0.005
1,1,2-Trichloroethane		0.005 U		0.005 U		0.001
1,1-Dichloroethane		0.005 U		0.005 U		0.005
1,1-Dichloroethene		0.005 U		0.005 U		0.005
1,2,3-Trichloropropane		0.005 U		0.005 U		0.00004
1,2-Dibromo-3-chloropropane		0.005 U		0.005 U		0.00004
1,2-Dibromoethane		0.005 U		0.005 U		0.005
1,2-Dichlorobenzene		0.005 U		0.005 U		0.003
1,2-Dichloroethane		0.005 U		0.005 U		0.0006
1,2-Dichloropropane		0.005 U		0.005 U		0.001
1,4-Dichlorobenzene		0.005 U		0.005 U		0.003
2-Butanone (MEK)		0.01 U		0.0018 J		0.005
2-Hexanone		0.01 U		0.01 U		0.005
4-Methyl-2-pentanone		0.00049 J		0.00046 J		0.005
Acetone		0.0051 BJ		0.0052 BJ		0.005
Acrylonitrile		0.1 U		0.1 U		0.005

Table 6

Fourth Quarter 2019 Groundwater Suppression System Analytical Results
Hyland Facility
Angelica, New York
(mg/L except where noted)

Parameter	GSS-1 11/5/2019	GSS-2 E/F 11/5/2019	GSS-2 G/H 11/5/2019	GSS-3 11/4/2019	GSS-5 11/4/2019	Class GA Standard
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Volatile Organic Compounds (con't)

Benzene		0.005 U		0.005 U		0.001
Bromochloromethane		0.005 U		0.005 U		0.005
Bromodichloromethane		0.005 U		0.005 U		0.005
Bromoform		0.005 U		0.005 U		0.005
Bromomethane		0.005 U		0.005 U		0.005
Carbon disulfide		0.01 U		0.01 U		0.005
Carbon tetrachloride		0.005 U		0.005 U		0.005
Chlorobenzene		0.005 U		0.005 U		0.005
Chloroethane		0.005 U		0.005 U		0.005
Chloroform		0.005 U		0.005 U		0.007
Chloromethane		0.0003 J		0.00033 BJ		0.005
cis-1,2-Dichloroethene		0.005 U		0.005 U		0.005
cis-1,3-Dichloropropene		0.005 U		0.005 U		0.0004
Dibromochloromethane		0.005 U		0.005 U		0.005
Dibromomethane		0.005 U		0.005 U		0.005
Dichloromethane (Methylene chloride)		0.005 U		0.005 U		0.005
Ethyl benzene		0.005 U		0.005 U		0.005
Iodomethane		0.01 U		0.01 U		0.005
m&p-Xylene		0.005 U		0.005 U		0.005
o-Xylene		0.005 U		0.005 U		0.005
Styrene		0.005 U		0.005 U		0.005
Tetrachloroethene		0.005 U		0.005 U		0.005
Toluene		0.005 U		0.005 U		0.005
trans-1,2-Dichloroethene		0.005 U		0.005 U		0.005
trans-1,3-Dichloropropene		0.005 U		0.005 U		0.0004
trans-1,4-Dichloro-2-butene		0.005 U		0.005 U		0.005
Trichloroethene		0.005 U		0.005 U		0.005
Trichlorofluoromethane		0.005 U		0.005 U		0.005
Vinyl acetate		0.01 U		0.01 U		0.005
Vinyl chloride		0.005 U		0.005 U		0.002

General Chemistry

Alkalinity	146	224	340	270	208	
Ammonia Nitrogen	0.05 U	0.063	0.246	0.08	0.05 U	2
Biochemical Oxygen Demand	2 U	2 U	2 U	2 U	2 U	
Bromide	1 U	1 U	1 U	1 U	1 U	
Chemical Oxygen Demand	11.5	5 U	10.5	5 U	5 U	
Chloride	9.1	5.8	7.6	5.7	13.6	250
Color (True) (C.U.)		15		7		15
Cyanide		0.005 U		0.005 U		0.2
Hardness	180	307	784	379	257	
Nitrate Nitrogen	0.5 J	1 U	1.4	1 U	1 U	10
pH of Color Analysis		7.63 *		7.36 *		
Sulfate	36	87.7	494	127	38.2	250
Total Dissolved Solids	243	390	1090	476	313	500
Total Kjeldahl Nitrogen	0.1 J	0.15 J	0.4	0.15 J	0.2 U	
Total Organic Carbon (TOC)	2.5	1.8	2.8	1.3	1 U	
Total Phenolics	0.005 U	0.001 J	0.0013 BJ	0.005 U	0.005 U	0.001

Notes:

Class GA Standard - NYSDEC Class GA Groundwater Standard
Concentrations in **bold** exceed Class GA Standards.

U - Concentration not detected at specified detection limit

J/UJ/BJ - Estimated value

* - Analysis performed out of hold time

Current and Historic Bedrock Well Analytical Results
Hyland Facility
Angelica, New York
(mg/L except where noted)

Parameter	MW-14 8/6-7/2018	MW-14 11/12-13/2018	MW-14 4/23/2019	MW-14 7/30/2019	MW-14 11/5/2019	MW-19 8/7/2018	MW-19 11/12/2018	MW-19 4/24/2019	MW-19 7/30/2019	MW-19 11/6/2019	MW-31 8/8/2018	MW-31 11/15/2018	MW-31 4/25/2019	MW-31 8/1/2019	MW-31 11/7/2019
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Field Parameters

Depth to Groundwater (ft)	38.48	38.22	37.3	37.79	38.5	43.5	30.42	31.55	32.88	44.84	13.21	13.18	12.66	12.74	13.81
Dissolved Oxygen						4.5	6.81	5.41	2.14	7.18	3.79	5.21	6.35	3.03	5.7
Field pH (std. units)	8.16	7.86	7.61	7.58	7.61	7.11	6.84	7	7.02	6.73	6.6	6.71	6.6	6.47	6.2
ORP (mV)	31.9	70	86.5	107	144.4	68.7	155.2	106	105.9	113.7	79	12.7	154.7	201.7	183.7
Specific Conductivity (us/cm)	270.3	333.2	332.2	306.1	311.1	480.4	453.7	423.8	452.2	501	366.2	340.9	403.3	358.4	420.5
Temperature (deg. C)	13.8	9.5	11.2	12.2	9.9	19	6.8	11.3	16.5	6.3	22.3	9.7	12.7	16.8	4.9
Turbidity (NTU)	1.33	2.89	5.43	2.53	1.8	4.87	0.98	0.89	1.03	6.22	0.9	1.62	1.69	0.76	0.86

Inorganic Compounds

Aluminum		0.1 U	0.145				0.1 U	0.0622 J				0.1 U	0.055 J		
Antimony		0.06 U	0.06 U				0.06 U	0.06 U				0.06 U	0.06 U		
Arsenic		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U		
Barium		0.0865	0.0762				0.056	0.0574				0.0155 J	0.0183 J		
Beryllium		0.003 U	0.003 U				0.003 U	0.003 U				0.003 U	0.003 U		
Boron		0.0225 J	0.0187 J				0.0469 J	0.0269 J				0.0226 J	0.0159 J		
Cadmium	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Calcium	39.9	46.8	45.8	43.8	42.8	59.9	53.3	51.2	53.7	65.7	48.7	46.3	53.6	46.7	53.5
Chromium		0.0057 J	0.0034 J				0.01 U	0.0009 J				0.01 U	0.0009 J		
Chromium, hexavalent		0.01 U	0.01 U,*				0.01 U	0.01 U,*				0.01 U	0.01 U,*		
Cobalt		0.05 U	0.05 U				0.05 U	0.05 U				0.05 U	0.05 U		
Copper		0.02 U	0.02 U				0.02 U	0.02 U				0.02 U	0.02 U		
Iron	0.1 U	0.0784 J	0.137	0.04 BJ	0.03 J	0.3	0.1 U	0.0548 J	0.09 BJ	0.43 B	0.1 U	0.1 U	0.0417 J	0.04 J	0.06 BJ
Lead	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Magnesium	9.6	11.7	11.6	11	10.9	21.6	21.4	19.2	21.9	23.2	11.4	11.3	13	10.8	12.5
Manganese	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.018	0.01 U	0.01 U	0.01 U	0.028	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Mercury		0.0002 U	0.0002 U				0.0002 U	0.0002 U				0.0002 U	0.0002 U		
Nickel		0.04 U	0.04 U				0.04 U	0.04 U				0.04 U	0.04 U		
Potassium	1.7 J	1.88 J	1.85 J	1.9 BJ	1.9 J	3.3	3.38	3.16	3.5	3.5	2.4	1.66 J	1.33 J	1.9 BJ	1.8 J
Selenium		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U		
Silver		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U		
Sodium	3.3	3.7	3.44	3.5	3.4	15.4	15.2	13.8	13.6	16.4	10.5	9.85	9.67	10.4	11.6
Thallium		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U		
Vanadium		0.05 U	0.05 U				0.05 U	0.05 U				0.05 U	0.05 U		
Zinc		0.02 U	0.02 U				0.02 U	0.02 U				0.02 U	0.02 U		

Volatile Organic Compounds

1,1,1,2-Tetrachloroethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,1,1-Trichloroethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,1,2,2-Tetrachloroethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,1,2-Trichloroethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,1-Dichloroethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,1-Dichloroethene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,2,3-Trichloropropane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,2-Dibromo-3-chloropropane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,2-Dibromoethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,2-Dichlorobenzene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,2-Dichloroethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,2-Dichloropropane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,4-Dichlorobenzene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
2-Butanone (MEK)		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U		

Current and Historic Bedrock Well Analytical Results
Hyland Facility
Angelica, New York
(mg/L except where noted)

Parameter	MW-14 8/6-7/2018	MW-14 11/12-13/2018	MW-14 4/23/2019	MW-14 7/30/2019	MW-14 11/5/2019	MW-19 8/7/2018	MW-19 11/12/2018	MW-19 4/24/2019	MW-19 7/30/2019	MW-19 11/6/2019	MW-31 8/8/2018	MW-31 11/15/2018	MW-31 4/25/2019	MW-31 8/1/2019	MW-31 11/7/2019
Volatile Organic Compounds (con't)															
2-Hexanone		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U		
4-Methyl-2-pentanone		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U		
Acetone		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U		
Acrylonitrile		0.1 U	0.1 U				0.1 U	0.1 U				0.1 U	0.1 U		
Benzene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Bromochloromethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Bromodichloromethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Bromoform		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Bromomethane		0.005 UJ	0.005 U				0.005 UJ	0.005 U				0.005 UJ	0.005 U		
Carbon disulfide		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 UJ		
Carbon tetrachloride		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Chlorobenzene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Chloroethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Chloroform		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Chloromethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
cis-1,2-Dichloroethene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
cis-1,3-Dichloropropene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Dibromochloromethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Dibromomethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Dichloromethane (Methylene chloride)		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Ethyl benzene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Iodomethane		0.01 U	0.01 UJ				0.01 U	0.01 U				0.01 UJ	0.01 U		
m&p-Xylene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
o-Xylene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Styrene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Tetrachloroethene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Toluene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
trans-1,2-Dichloroethene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
trans-1,3-Dichloropropene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
trans-1,4-Dichloro-2-butene		0.005 UJ	0.005 UJ				0.005 UJ	0.005 U				0.005 U	0.005 U		
Trichloroethene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Trichlorofluoromethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Vinyl acetate		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U		
Vinyl chloride		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		

General Chemistry															
Alkalinity	123	142	146	133	139	188	190	165	196	217	83.2	91.2	81.2	104	91.2
Ammonia Nitrogen	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Biochemical Oxygen Demand	2 U	18.1	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromide	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chemical Oxygen Demand	5 U	5 U	5.8	5 U	3.9 J	4.1 J	5 U	5 U	5 U	5 U	5 U	5 U	5.1 J	5 U	5 U
Chloride	2.4	2.1	2 J	2.1	2.7	29.2	18.3	29.8	20	23.5	21.8	16.3	42.3	17.8	53
Color (True) (C.U.)		6	10				7	10				9	16		
Cyanide		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U		
Hardness	139	165	162	155	152	238	221	207	224	260	169	162	187	161	185
Nitrate Nitrogen	1 U	0.3 J	1 U	1 U	1 U	0.6 J	0.6 J	0.6 J	0.4 J	0.7 J	0.7 J	0.6 J	0.5 J	0.5 J	0.6 J
pH of Color Analysis		7.78	7.77				7.08	7.28				7.14 *	7.18 *		
Sulfate	17.5	20.1	21.2	19.5	19.8	30.5	20.6	19.1	18	29.4	68.1	56.8	63.6	55.4	56.2
Total Dissolved Solids	171	193	187	184	193	283	268	259	281	310	235	225	242	236	256
Total Kjeldahl Nitrogen	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.16 J	0.17 J	0.2 U	0.2 U	0.2 U	0.11 J	0.09 J	0.2 U	0.2 U	0.2 U
Total Organic Carbon (TOC)	0.4 J	0.4 J	0.6 J	0.7 J	1 U	1.5	1.6	1	1.2	1.2	0.7 J	0.8 J	1 U	0.7 J	1 U
Total Phenolics	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U

Current and Historic Bedrock Well Analytical Results
Hyland Facility
Angelica, New York
(mg/L except where noted)

Parameter	MW-34 8/2/2018	MW-34 11/15/2018	MW-34 4/24/2019	MW-34 8/1/2019	MW-34 11/4/2019	MW-37 8/8/2018	MW-37 11/19/2018	MW-37 4/25/2019	MW-37 8/1/2019	MW-37 11/6/2019	MW-40 8/8/2018	MW-40 11/15/2018	MW-40 4/25/2019	MW-40 7/30/2019	MW-40 11/7/2019	MW-48 8/2/2018	MW-48 4/24/2019	MW-48 8/1/2019	MW-48 11/4/2019
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Field Parameters

Depth to Groundwater (ft)	150.78	152.8	150.51	148.95	150.09	31.34	27.69	23.49	24.18	33.8	39.01	33.82	34.74	35.12	48.35	154.47	148	147.9	155.69
Dissolved Oxygen	1.4	1.04	2.62	3.12	1.29	3.92	2.07	1.92	3.21	1.58	3.61	3.29	1.21	0.91	3.09	2.4	4.46	1.28	2.93
Field pH (std. units)	7.71	7.67	7.65	7.68	7.34	7.54	7.48	7.42	7.72	7.4	7.17	7.18	7.06	7.08	7.38	7.15	7.31	7.14	7.11
ORP (mV)	-109.4	-166.5	-57.7	-103.1	-70.9	70.7	33.8	137.2	162.4	126.7	84.6	41.6	112	96.2	153.7	22.6	94.1	61.7	67.6
Specific Conductivity (us/cm)	588.7	588.4	592.1	600	591.5	485.7	490.9	484.5	489.3	479.3	314.7	333	312	322	440.9	1139	1220	929	93.4
Temperature (deg. C)	15	7.2	10.2	20.1	7.3	20.9	9.2	15.2	22.1	11.5	22.6	11.3	14	19.5	7.4	21.8	14	22.1	8.7
Turbidity (NTU)	0.4	0.6	0.68	0.38	0.46	3.04	0.44	0.53	0.27	1.11	3.38	0.49	2.53	1.77	4.49	23.6	34.5	1.94	6.58

Inorganic Compounds

Aluminum		0.1 U	0.1 U				0.1 U	0.023 J				0.1 U	0.0602 J				3.03		
Antimony		0.06 U	0.06 U				0.06 U	0.06 U				0.06 U	0.06 U				0.06 U		
Arsenic		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U		
Barium		0.322	0.325				0.0534	0.0557				0.0191 J	0.0168 J				0.0377		
Beryllium		0.003 U	0.003 U				0.003 U	0.003 U				0.003 U	0.003 U				0.003 U		
Boron		0.259	0.253				0.0357 J	0.034 J				0.0466 J	0.0332 J				0.056 J		
Cadmium	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Calcium	48.7	48.6	48.2	46.7	49.4	70.1	73.8 E	69.4	64.8	67.1	35.9	41.3	35.7	35.7	48.4	187	184	133	158
Chromium		0.01 U	0.01 U				0.01 U	0.0006 J				0.01 U	0.0009 J				0.0047 J		
Chromium, hexavalent		0.01 U	0.01 U,*				0.01 U	0.01 U,*				0.01 U	0.01 U,*				0.01 U,*		
Cobalt		0.05 U	0.05 U				0.05 U	0.05 U				0.05 U	0.05 U				0.0016 J		
Copper		0.02 U	0.02 U				0.02 U	0.0085 J				0.02 U	0.02 U				0.02 U		
Iron	0.18	0.197	0.199	0.15	0.2	0.14	0.1 U	0.1 U	0.1 U	0.06 BJ	0.09 J	0.1 U	0.0582 J	0.03 BJ	0.24 B	0.94	3.13	0.08 J	0.27
Lead	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Magnesium	14.7	14.7	14.5	14	14.7	23.5	24.7	23.7	22.1	22.6	15.7	18.8	16.8	16.2	27.4	56.8	60.9	40.7	48
Manganese	0.126	0.131	0.127	0.124	0.137	0.007 J	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.006 J	0.532	0.574	0.096	0.043
Mercury		0.0002 U	0.0002 U				0.0002 U	0.0002 U				0.0002 U	0.0002 U				0.0002 U		
Nickel		0.04 U	0.04 U				0.04 U	0.04 U				0.04 U	0.04 U				0.04 U		
Potassium	1.5 J	1.5 J	1.35 J	1.6 BJ	1.3 J	3.7	2.54	2.18	2.5	2.3	2.8	2.79	2.26	2.4	2.9	4.7	6.61	3.1	3.6
Selenium		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U		
Silver		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U		
Sodium	75.6	79.4	74.4	72.2	75.4	8.1	8.01	6.77	6.9	7.5	9.3	10.4	8	8.9	9.5	38.3	37.4	30.9	33.8
Thallium		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U		
Vanadium		0.05 U	0.05 U				0.05 U	0.05 U				0.05 U	0.05 U				0.0035 J		
Zinc		0.02 U	0.02 U				0.02 U	0.02 U				0.02 U	0.02 U				0.0157 J		

Volatile Organic Compounds

1,1,1,2-Tetrachloroethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
1,1,1-Trichloroethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
1,1,2,2-Tetrachloroethane		0.005 U	0.005 UJ				0.005 U	0.005 U				0.005 U	0.005 U				0.005 UJ		
1,1,2-Trichloroethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
1,1-Dichloroethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
1,1-Dichloroethene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
1,2,3-Trichloropropane		0.005 U	0.005 UJ				0.005 U	0.005 U				0.005 U	0.005 U				0.005 UJ		
1,2-Dibromo-3-chloropropane		0.005 U	0.005 U				0.005 UJ	0.005 U				0.005 U	0.005 U				0.005 U		
1,2-Dibromoethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
1,2-Dichlorobenzene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
1,2-Dichloroethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
1,2-Dichloropropane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
1,4-Dichlorobenzene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
2-Butanone (MEK)		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U		

Current and Historic Bedrock Well Analytical Results
Hyland Facility
Angelica, New York
(mg/L except where noted)

Parameter	MW-34 8/2/2018	MW-34 11/15/2018	MW-34 4/24/2019	MW-34 8/1/2019	MW-34 11/4/2019	MW-37 8/8/2018	MW-37 11/19/2018	MW-37 4/25/2019	MW-37 8/1/2019	MW-37 11/6/2019	MW-40 8/8/2018	MW-40 11/15/2018	MW-40 4/25/2019	MW-40 7/30/2019	MW-40 11/7/2019	MW-48 8/2/2018	MW-48 4/24/2019	MW-48 8/1/2019	MW-48 11/4/2019
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Volatile Organic Compounds (con't)

2-Hexanone		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U		
4-Methyl-2-pentanone		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U		
Acetone		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U		
Acrylonitrile		0.1 U	0.1 U				0.1 U	0.1 U				0.1 U	0.1 U				0.1 U		
Benzene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
Bromochloromethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
Bromodichloromethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
Bromoform		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
Bromomethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
Carbon disulfide		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U		
Carbon tetrachloride		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
Chlorobenzene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
Chloroethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
Chloroform		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
Chloromethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
cis-1,2-Dichloroethene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
cis-1,3-Dichloropropene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
Dibromochloromethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
Dibromomethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
Dichloromethane (Methylene chloride)		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
Ethyl benzene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
Iodomethane		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U		
m&p-Xylene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
o-Xylene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
Styrene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
Tetrachloroethene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
Toluene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
trans-1,2-Dichloroethene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
trans-1,3-Dichloropropene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
trans-1,4-Dichloro-2-butene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
Trichloroethene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
Trichlorofluoromethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		
Vinyl acetate		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U		
Vinyl chloride		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U		

General Chemistry

Alkalinity	239	235	238	234	236	215	213	214	208	213	131	150	137	146	187	223	222	217	215
Ammonia Nitrogen	0.283	0.241	0.335	0.309	0.318	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.016 J	0.05 U	0.05 U	0.05 U
Biochemical Oxygen Demand	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromide	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chemical Oxygen Demand	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloride	18.7	18.8	19.4	21.1	21.3	11.7	10.6	11.9	12.4	11.6	13.1	9.5	12.7	8	10.9	14.3	13.2	13.7	15
Color (True) (C.U.)		12	7				5	14				8	14				16		
Cyanide		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U		
Hardness	182	182	180	174	184	272	286	271	253	261	154	181	158	156	234	700	711	499	593
Nitrate Nitrogen	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.6 J	0.4 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U
pH of Color Analysis		7.81 *	7.7				7.51	7.98 *				7.5 *	7.76 *				7.56		
Sulfate	60	59.9	65.4	61.3	64.8	42.6	39.4	40.5	39.9	44.5	18.3	16.7	16	15.5	48.8	425	509	376	412
Total Dissolved Solids	394	387	386	388	384	310	312 *	304	306	307	195	199	190	196	284	992	926	711	815
Total Kjeldahl Nitrogen	0.51	0.44	0.33	0.69	0.29	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.08 J	0.2 U	0.2 U	0.2 U	0.2 U	0.24	0.2 U	0.28	0.2 U
Total Organic Carbon (TOC)	0.6 J	0.8 J	1 U	0.5 J	1 U	0.5 J	0.5 J	1 U	1 U	1 U	0.7 J	0.9 J	0.6 J	1.6	1 U	1.4	1.1	1.4	0.7 J
Total Phenolics	0.005 U	0.005 U	0.005 U	0.005 U	0.0014 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0015 J

Notes:

U - Concentration not detected at specified detection limit
J/UJ/BJ - Estimated value

B - Analyte was also detected in associated method blank
E - Concentration is estimated due to serial dilution outside control limits
* - Denotes analysis was performed outside holding time.

100 Parameter exceeds Class GA Std but is below EWQV
100 Parameter exceeds both EWQV (mean) and Class GA Std
100 Parameter exceeds EWQV plus three std deviations
100 Parameter exceeds the above criteria

Table 7 Continued

**Groundwater Pre-Operational Water Quality Data
and NYSDEC Water Quality Standards
Hyland Facility
Angelica, New York
(mg/L except where noted)**

Parameter	Bedrock Pre-Operational Water Quality Data			Class GA Standard
	Mean	Standard Deviation	Mean +3 Standard Deviations	

Field Parameters

Field pH (std. units) Lower limit	7.6	0.32	6.64	6.5 - 8.5
Field pH (std. units) Upper limit	7.6	0.32	8.57	6.5 - 8.5
ORP (mV)	94.6	129.3	482.5	
Specific Conductivity (us/cm)	446	88	710	
Turbidity (NTU)	93.3	158	567.3	5

Inorganic Compounds

Aluminum	1.03/8.3	1.68/8.1	6.08/32.5	
Antimony	0.0112/0.015	0.007/0.004	0.0323/0.028	0.003
Arsenic	0.004/0.009	0.002/0.006	0.009/0.026	0.025
Barium	0.038/0.104	0.024/0.052	0.11/0.26	1
Beryllium	0.0014/0.001	0.0002/0.001	0.002/0.003	
Boron	0.2/0.03	0.09/0.025	0.48/0.106	1
Cadmium	0.0021/0.0019	0.001/0.0013	0.005/0.0057	0.005
Calcium	55.6/46	11.4/9.6	89.8/74.4	
Chromium	0.0043/0.044	0.0051/0.046	0.0196/0.182	0.05
Chromium, hexavalent	0.005/0.005	0/0	0.005/0.005	
Cobalt	0.009/0.009	0.002/0.006	0.015/0.027	
Copper	0.007/0.035	0.004/0.034	0.02/0.138	0.2
Iron	3.7/13.7	10.2/11.8	34.3/49	0.3
Lead	0.0036/0.022	0.0046/0.029	0.017/0.11	0.025
Magnesium	20.1/15.6	5.56/6.52	36.8/35.2	
Manganese	0.0996/0.63	0.2736/0.703	0.9205/2.74	0.3
Mercury	0.0001/0.0001	0/0	0.0001/0.0001	0.0007
Nickel	0.013/0.036	0.004/0.028	0.024/0.118	0.1
Potassium	2.47/3.8	0.85/1.2	5.01/7.3	
Selenium	0.0019/0.001	0.0009/0	0.0047/0.001	0.01
Silver	0.004/0.003	0.002/0.001	0.009/0.006	0.05
Sodium	7.66/7.18	1.79/2.95	13/16	20
Thallium	0.004/0.0008	0.002/0.0007	0.01/0.0029	
Tin3	NA/0.4	NA/0	NA/0.4	
Vanadium	0.014/0.01	0.004/0.005	0.024/0.024	
Zinc	0.0213/0.076	0.0208/0.064	0.0838/0.268	

Wet Chemistry

Alkalinity	185	61	369	
Ammonia Nitrogen	0.19	0.14	0.6	2
Biochemical Oxygen Demand	2	2	8	
Bromide	0.3	0.2	1	
Chemical Oxygen Demand	12	10	41	
Chloride	9.53	6.89	30.2	250
Color (True) (C.U.)	57	117	407	15
Cyanide	0.006	0.002	0.012	0.2
Hardness	216	40	335	
Nitrate Nitrogen	0.28	0.2	0.88	10
Sulfate	51.5	25.2	127.1	250
Sulfide	0.4	0.66	2.39	
Total Dissolved Solids	247	78	480	500
Total Kjeldahl Nitrogen	0.62	0.63	2.53	
Total Organic Carbon (TOC)	2	1.3	5.8	
Total Phenolics	0.0044	0.0068	0.025	0.001

Notes:

Pre-operational data from wells MW-14, MW-19, MW-26, MW-31, MW-36A, MW-37, MW-37A, MW-38, MW-38A, MW-39A, MW-40, MW-40A, MW-41A, MW-42A and MW-47A; with the exception of Tin which is the preceding list of wells plus MW-15, MW-15A, MW-16, MW-17, MW-20, MW-20A, MW-21, MW-21R, MW-21AR, MW-22, MW-23, MW-27, MW-27A, MW-28, MW-28A, MW-29, MW-29A, MW-30, MW-30A, MW-F, MW-G and MW-H.

Table 7A

Bedrock Well MW-48 Analytical Results Compared to Intra-Well EWQVs
Hyland Facility
Angelica, New York
(mg/L except where noted)

Parameter	Pre-Operational Groundwater Results				Operational Results				Intra-Well Existing Water Quality Values Calculations					Class GA Standard
	MW-48 6/1/2017	MW-48 7/26/2017	MW-48 9/6/2017	MW-48 11/7/2017	MW-48 4/30/2018	MW-48 8/02/2018	MW-48 4/24/2019	MW-48 8/1/2019	Minimum	Maximum	Mean (EWQV)	Standard Deviation	Mean +3 Standard Deviations	
Field Parameters														
Dissolved Oxygen	1.49	2.99	3.33	4.61	2.36	2.4	4.46	1.28	1.49	4.61	3.11	1.28	6.95	
Field pH (std. units)	6.86	7.19	6.97	7.18	7.16	7.15	7.31	7.14	6.86	7.19	7.05	0.16	7.54	6.5 - 8.5
ORP (mV)	44.6	168	113.7	76.4	130	22.6	94.1	61.7	44.60	168.00	100.68	53.03	259.76	
Specific Conductivity (us/cm)	1716	1148	1549	1972	1147	1139	1220	929	1148.00	1972.00	1596.25	345.78	2633.59	
Temperature (deg. C)	14	21.1	16.7	6.7	14	21.8	14	22.1	6.70	21.10	14.63	6.04	32.74	
Turbidity (NTU)	40.9	86.5	79.9	34.1	69.2	23.6	34.5	1.94	34.10	86.50	60.35	26.67	140.35	5
Inorganic Compounds														
Aluminum	1.92	6.75	4.24	2.55			3.03		1.92	6.75	3.87	2.16	10.34	
Antimony	0.03	0.03	0.03	0.03			0.06 U		0.03	0.03	0.03	0.00	0.03	0.003
Arsenic	0.005	0.0037	0.0037	0.005			0.01 U		0.00	0.01	0.00	0.00	0.01	0.025
Barium	0.0464	0.0551	0.044	0.0426			0.0377		0.04	0.06	0.05	0.01	0.06	1
Beryllium	0.0015	0.0015	0.0015	0.0015			0.003 U		0.00	0.00	0.00	0.00	0.00	
Boron	0.112	0.1	0.1	0.1			0.056		0.10	0.11	0.10	0.01	0.12	1
Cadmium	0.0025	0.0025	0.0025	0.0025	0.005 U	0.005 U	0.005 U	0.005U	0.00	0.00	0.00	0.00	0.00	0.005
Calcium	295	188	219	336	173	187	184	133	188	336	260	68	463	
Chromium	0.0017	0.0081	0.0048	0.0032			0.0047 J		0.00	0.01	0.00	0.00	0.01	0.05
Chromium, hexavalent	0.005	0.005	0.005	0.005			0.01 U		0.01	0.01	0.01	0.00	0.01	
Cobalt	0.0023	0.0036	0.025	0.025			0.0016 J		0.00	0.03	0.01	0.01	0.05	
Copper	0.0014	0.01	0.01	0.01			0.02 U		0.00	0.01	0.01	0.00	0.02	0.2
Iron	1.76	5.83	3.9	2.84	1.62	0.94	3.13	0.08 J	1.76	5.83	3.58	1.73	8.79	0.3
Lead	0.025	0.025	0.025	0.025	0.05 U	0.05 U	0.05 U	0.05 U	0.03	0.03	0.03	0.00	0.03	0.025
Magnesium	95.7	56.6	69.3	105	52.3	56.8	60.9	40.7	56.6	105.0	81.7	22.5	149.2	
Manganese	1.23	0.59	0.301	0.526	0.132	0.532	0.574	0.096	0.30	1.23	0.66	0.40	1.86	0.3
Mercury	0.0001	0.0001	0.0001	0.0001			0.0002 U		0.00	0.00	0.00	0.00	0.00	0.0007
Nickel	0.02	0.02	0.02	0.02			0.04 U		0.02	0.02	0.02	0.00	0.02	0.1
Potassium	12.9	9.95	10.7	10.3	4.4	4.7	6.61	3.1	9.95	12.90	10.96	1.33	14.95	
Selenium	0.005	0.005	0.005	0.005			0.01 U		0.01	0.01	0.01	0.00	0.01	0.01
Silver	0.005	0.005	0.005	0.005			0.01 U		0.01	0.01	0.01	0.00	0.01	0.05
Sodium	32.9	36	35	36.7	39.2	38.3	37.4	30.9	32.90	36.70	35.15	1.65	40.11	20
Thallium	0.0041	0.005	0.0076	0.0071			0.01 U		0.00	0.01	0.01	0.00	0.01	
Vanadium	0.0038	0.0109	0.007	0.004			0.0035 J		0.00	0.01	0.01	0.00	0.02	
Zinc	0.0068	0.0155	0.0105	0.0101			0.0157 J		0.01	0.02	0.01	0.00	0.02	

Table 7A

Bedrock Well MW-48 Analytical Results Compared to Intra-Well EWQVs
 Hyland Facility
 Angelica, New York
 (mg/L except where noted)

Parameter	Pre-Operational Groundwater Results				Operational Results				Intra-Well Existing Water Quality Values Calculations					Class GA Standard
	MW-48 6/1/2017	MW-48 7/26/2017	MW-48 9/6/2017	MW-48 11/7/2017	MW-48 4/30/2018	MW-48 8/02/2018	MW-48 4/24/2019	MW-48 8/1/2019	Minimum	Maximum	Mean (EWQV)	Standard Deviation	Mean +3 Standard Deviations	
Wet Chemistry														
Alkalinity	228	231	228	232	223	223	222	217	228	232	230	2	236	
Ammonia Nitrogen	0.025	0.057	0.025	0.025	0.05 U	0.016 J	0.05 U	0.05 U	0.03	0.06	0.03	0.02	0.08	2
Biochemical Oxygen Demand	1	4.5	1	2.8	2 U	2 U	2 U	2 U	1.00	4.50	2.33	1.68	7.37	
Bromide	0.5	0.5	0.5	0.5	1 U	1 U	1 U	1 U	0.50	0.50	0.50	0.00	0.50	
Chemical Oxygen Demand	5.4	5	7.5	12.7	4 J	5 U	5 U	5 U	5.00	12.70	7.65	3.54	18.27	
Chloride	13.8	15.2	13.9	12.8	13.3	14.3	13.2	13.7	12.80	15.20	13.93	0.98	16.88	250
Color (True) (C.U.)	14	35	15	21			16		14.00	35.00	21.25	9.67	50.27	15
Cyanide	0.005	0.005	0.005	0.005			0.01 U		0.01	0.01	0.01	0.00	0.01	0.2
Hardness	1130	701	833	1270	648	700	711	499	701	1270	984	262	1770	
Nitrate Nitrogen	0.5	0.5	0.6	0.6	1 U	1 U	1 U	1 U	0.50	0.60	0.55	0.06	0.72	10
Sulfate	646	456	680	988	430	425	509	376	456	988	693	220	1353	250
Total Dissolved Solids	1200	988	1260	1630	897	992	926	711	988	1630	1270	267	2071	500
Total Kjeldahl Nitrogen	0.28	0.32	0.3	0.38	0.08 J	0.24	0.2 U	0.28	0.28	0.38	0.32	0.04	0.45	
Total Organic Carbon (TOC)	0.6	1.1	1.2	1.5	1.4	1.4	1.1	1.4	0.60	1.50	1.10	0.37	2.22	
Total Phenolics	0.0025	0.0025	0.0025	0.0025	0.005 U	0.005 U	0.005 U	0.005 U	0.003	0.003	0.003	0.000	0.003	0.001

Notes:

- Four rounds pre-operational sample results used to calculate intra-well EWQVs
- Calculations use 1/2 detection limit for non-detects

100
100
100
100

- parameter exceeds the Class GA Standard but is below the EWQV
- parameter exceeds both the EWQV (mean) and the Class GA Standard
- parameter exceeds the EWQV (mean) plus three standard deviations
- parameter exceeds Class GA and EWQV + three standard deviations

Current and Historic Overburden Well Analytical Results
Hyland Facility
Angelica, New York
(mg/L except where noted)

Parameter	MW-26 8/6-7/2018	MW-26 11/13/2018	MW-26 4/23/2019	MW-26 7/29-30/2019	MW-26 11/5/2019	MW-34A 8/6-7/2018	MW-34A 11/13-14/2018	MW-34A 4/23-24/2019	MW-34A 7/30/2019	MW-34A 11/5/2019	MW-36A 8/7-9/2018	MW-36A 11/13-14/2018	MW-36A 4/23-25/2019	MW-36A 8/5/2019	MW-36A 11/5-11/2019	MW-37A 8/7-8/2018	MW-37A 11/13-14/2018	MW-37A 4/23-25/2019	MW-37A 7/29-30/2019	MW-37A 11/5/2019
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Field Parameters

Depth to Groundwater (ft)	12.88	13.36	13.33	12.6	13	96.2	95.56	91.83	92.43	92.27	62.14	62.62	61.76	61.53	61.46	34.3	33.97	32	32.41	31.92
Dissolved Oxygen																				
Field pH (std. units)	6.52	6.58	6.9	6.65	6.48	7.2	7.33	7.29	7.23	7.18	6.88	6.87	6.9	7.01	6.95	7.21	7.17	7.12	7.19	7.12
ORP (mV)	50.4	143.4	111.7	112.2	178.3	-151.1	-63.8	-75.4	-54.7	-43.7	29.7	133.2	92.2	77.7	113.5	81.1	124.1	130	89.7	80.7
Specific Conductivity (us/cm)	1185	1011	1289	1202	1138	223.8	2242	2222	2253	2195	2956	2963	2958	2961	2874	1440	1478	1539	1526	1491
Temperature (deg. C)	17.3	12.5	9.3	14.2	13.1	12.2	8.6	11.7	13.5	9.3	14.2	9.1	11	13.6	9.6	15.3	11.7	12.9	15.8	11.9
Turbidity (NTU)	7.27	26.2	15.5	10.5	3.68	17	36.3	22.1	15.8	8.16	180	43.3	18.6	4.18	7.58	8.27	25.1	3.94	10	5.99

Inorganic Compounds

Aluminum		0.977	0.539				1.1	0.815				2.06	0.824				0.854	0.0745 J		
Antimony		0.06 U	0.06 U				0.06 U	0.06 U				0.06 U	0.0047 J				0.06 U	0.06 U		
Arsenic		0.01 U	0.01 U				0.0094 J	0.0113				0.01 U	0.01 U				0.01 U	0.01 U		
Barium		0.0629	0.0597				0.0286	0.0278				0.0184 J	0.0124 J				0.0154 J	0.011 J		
Beryllium		0.003 U	0.003 U				0.003 U	0.003 U				0.003 U	0.003 U				0.003 U	0.003 U		
Boron		0.0231 J	0.0159 J				0.127 J	0.124 J				0.131 J	0.125 J				0.144 J	0.14 J		
Cadmium	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Calcium	176	148	175	165	167	364	387	360	350	333	536	541	543	498	473	213	223	225	218	217
Chromium		0.01 U	0.001 J				0.01 U	0.0008 J				0.002 J	0.0015 J				0.01 U	0.0007 J		
Chromium, hexavalent		0.01 U	0.01 U,*				0.05 U	0.05 U,*					0.01 U,*				0.01 U	0.01 U,*		
Cobalt		0.05 U	0.05 U				0.05 U	0.0014 J				0.05 U	0.05 U				0.05 U	0.05 U		
Copper		0.02 U	0.02 U				0.02 U	0.02 U				0.02 U	0.02 U				0.02 U	0.02 U		
Iron	0.23	0.848	0.49	0.24 B	0.13	5.96	6.03	5.63	4.12	4.34	6.84	2.07	0.745	0.04 J	0.3	0.26	0.846	0.0674 J	0.2 B	0.2
Lead	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Magnesium	43.3	37.1	43.4	40.9	41.7	112	113	114	105	113	201	198	201	196	199	78.2	81.6	87.1	82	85.5
Manganese	0.01 U	0.0275	0.01	0.005 J	0.006 J	3.45	2.67	2.18	1.83	1.97	0.213	0.101	0.0209	0.006 J	0.016	0.006 J	0.0152	0.01 U	0.015	0.023
Mercury		0.0002 U	0.0002 U				0.0002 U	0.0002 U				0.0002 U	0.0002 U				0.0002 U	0.0002 U		
Nickel		0.04 U	0.04 U				0.04 U	0.04 U				0.04 U	0.04 U				0.04 U	0.04 U		
Potassium	1.9 J	3.07	1.84 J	1.8 BJ	1.9 J	13.4	14	14.6	12.9	12.4	14.4	12.7	13.3	11.8	11.7	12	13.1	12.4	12.3	12
Selenium		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U		
Silver		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U		
Sodium	59.5	55.7	57.1	56.4	60.1	94.7	101	97.2	92.2	92.2	84.2	88.1	84	75.2	76.1	43.5	46.3	41.2	43.2	43.3
Thallium		0.01 U	0.0084 J				0.009 J	0.0178				0.01	0.023				0.0085 J	0.01 U		
Vanadium		0.05 U	0.05 U				0.002 J	0.05 U				0.0027 J	0.05 U				0.05 U	0.05 U		
Zinc		0.02 U	0.02 U				0.02 U	0.02 U				0.016 J	0.02 U				0.0104 J	0.02 U		

Volatile Organic Compounds

1,1,1,2-Tetrachloroethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,1,1-Trichloroethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,1,2,2-Tetrachloroethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,1,2-Trichloroethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,1-Dichloroethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,1-Dichloroethene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,2,3-Trichloropropane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,2-Dibromo-3-chloropropane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,2-Dibromoethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,2-Dichlorobenzene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,2-Dichloroethane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,2-Dichloropropane		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,4-Dichlorobenzene		0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
2-Butanone (MEK)		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U		
2-Hexanone		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U		
4-Methyl-2-pentanone		0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U		
Acetone		0.0025 J	0.01 U				0.0025 J	0.01 U				0.0034 J	0.01 U				0.0022 J	0.01 U		

Current and Historic Overburden Well Analytical Results
Hyland Facility
Angelica, New York
(mg/L except where noted)

Parameter	MW-26 8/6-7/2018	MW-26 11/13/2018	MW-26 4/23/2019	MW-26 7/29-30/2019	MW-26 11/5/2019	MW-34A 8/6-7/2018	MW-34A 11/13-14/2018	MW-34A 4/23-24/2019	MW-34A 7/30/2019	MW-34A 11/5/2019	MW-36A 8/7-9/2018	MW-36A 11/13-14/2018	MW-36A 4/23-25/2019	MW-36A 8/5/2019	MW-36A 11/5-11/2019	MW-37A 8/7-8/2018	MW-37A 11/13-14/2018	MW-37A 4/23-25/2019	MW-37A 7/29-30/2019	MW-37A 11/5/2019
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Volatile Organic Compounds (con't)																				
Acrylonitrile		0.1 U	0.1 U																	
Benzene		0.005 U	0.005 U																	
Bromochloromethane		0.005 U	0.005 U																	
Bromodichloromethane		0.005 U	0.005 U																	
Bromoform		0.005 U	0.005 U																	
Bromomethane		0.005 UJ	0.005 U																	
Carbon disulfide		0.01 U	0.01 U																	
Carbon tetrachloride		0.005 U	0.005 U																	
Chlorobenzene		0.005 U	0.005 U																	
Chloroethane		0.005 U	0.005 U																	
Chloroform		0.005 U	0.005 U																	
Chloromethane		0.005 U	0.005 U																	
cis-1,2-Dichloroethene		0.005 U	0.005 U																	
cis-1,3-Dichloropropene		0.005 U	0.005 U																	
Dibromochloromethane		0.005 U	0.005 U																	
Dibromomethane		0.005 U	0.005 U																	
Dichloromethane (Methylene chloride)		0.005 U	0.005 U																	
Ethyl benzene		0.005 U	0.005 U																	
Iodomethane		0.01 U	0.01 UJ																	
m&p-Xylene		0.005 U	0.005 U																	
o-Xylene		0.005 U	0.005 U																	
Styrene		0.005 U	0.005 U																	
Tetrachloroethene		0.005 U	0.005 U																	
Toluene		0.005 U	0.005 U																	
trans-1,2-Dichloroethene		0.005 U	0.005 U																	
trans-1,3-Dichloropropene		0.005 U	0.005 U																	
trans-1,4-Dichloro-2-butene		0.005 UJ	0.005 UJ																	
Trichloroethene		0.005 U	0.005 U																	
Trichlorofluoromethane		0.005 U	0.005 U																	
Vinyl acetate		0.01 U	0.01 U																	
Vinyl chloride		0.005 U	0.005 U																	

General Chemistry																				
Alkalinity	377	352	394	360	379	281	242	249	231	224						379	398	406	336	340
Ammonia Nitrogen	0.05 U	0.05 U	0.05 U	0.048 J	0.05 U	0.753	0.218	0.121	0.176	0.182	0.05 U					0.05 U	0.05 U	0.05 U	0.05 U	0.123
Biochemical Oxygen Demand	2 U	2 U	2 U	3.8	2 U	6.2	5.6	2 U	2 U	2.4								2 U	2 U	2 U
Bromide	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U						1 U		1 U	1 U	1 U
Chemical Oxygen Demand	17.2	20.6	21.8	35.6	23.2	30.6	43.9	26.3	9.9	12.2	5.8					14.3	6.3	6.7	17.2	3.4 J
Chloride	90.4	91.1	96	92.6	99.5	2.7	2.3	2.4	2.1	2.7						2.5		3	1.4 J	1.3 J
Color (True) (C.U.)		15	16				37	18								17			6	28
Cyanide		0.01 U	0.01 U				0.01 U	0.01 U								0.01 U	0.01 U		0.01 U	0.01 U
Hardness	618	522	617	580	588	1370	1430	1370	1310	1300	2170	2170	2180	2050	2000	854	894	921	880	894
Nitrate Nitrogen	0.7 J	0.7 J	0.3 J	0.7 J	0.7 J	1 U	0.3 J	1 U	0.2 J	0.4 J						1 U	1 U	1 U	1 U	1 U
pH of Color Analysis		6.67	7.19				7.27	7.44								7.27			7.21	7.96 *
Sulfate	138	132	148	151	165	1180	1240	1320	1200	1350						1850	1800	563	576	674
Total Dissolved Solids	812	744	797	784	804	2180	2070	2080	2090	2050						3000	2990	1230	1230	1330
Total Kjeldahl Nitrogen	0.46	0.54	0.53	1.17	0.45	2.1	1.32	0.81	0.45	0.32	0.27					0.24	0.11 J	0.2 U	0.1 J	0.25 J
Total Organic Carbon (TOC)	7.6	6.7	7.8	12.1	8	11.1	11.1	6	3.6	3.7						2	2.3	2	1.1	2.7
Total Phenolics	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0032 J	0.005 U	0.005 U	0.005 U	0.005 U						0.005 U	0.005 U	0.0015 BJ	0.005 U	0.005 U

Current and Historic Overburden Well Analytical Results
Hyland Facility
Angelica, New York
(mg/L except where noted)

Parameter	MW-40A 8/6-7/2018	MW-40A 4/23/2019	MW-40A 7/29-30/2019	MW-40A 11/5-11/2019	MW-41A 8/6-7/2018	MW-41A 11/12-13/2018	MW-41A 4/23-24/2019	MW-41A 7/29-30/2019	MW-41A 11/5/2019	MW-42A 8/6-9/2018	MW-42A 11/12/2018	MW-42A 4/24/2019	MW-42A 7/29-30/2019	MW-42A 11/5-7/2019	MW-45A 8/7/2018	MW-45A 11/13-18/2018	MW-45A 4/23-24/2019	MW-45A 7/29-30/2019	MW-45A 11/5/2019	MW-47A 8/7/2018	MW-47A 11/15/2018	MW-47A 4/24/2019	MW-47A 8/1/2019	MW-47A 11/6/2019
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Field Parameters

Depth to Groundwater (ft)	34.28	32.48	32.91	32.78	55.05	55.59	54.74	54.5	54.94	65.33	65.62	64.95	64.75	65.09	90.28	88.94	85.58	86.54	86.95	27.67	28.75	23.83	24.37	27	
Dissolved Oxygen																					2.09	2.95	1.16	0.52	0.56
Field pH (std. units)	6.98	6.98	6.99	6.69	6.95	6.99	6.99	6.97	6.86	6.92	6.95	6.94	6.92	7	7.31	7.27	7.46	7.38	7.17	7.3	7.3	7.18	7.21	7.17	
ORP (mV)	67.6	94.1	125.6	183.1	76.2	161.6	139.6	135	173.2	-166.9	56.6	87.3	104.4	161.1	14.6	-58.3	-51.1	-68	19.4	-202.9	-135	34	-192.3	-101.1	
Specific Conductivity (us/cm)	2112	2185	2198	2115	3404	3418	3425	3484	3334	3086	3073	3066	3158	3013	1411	1399	1445	1371	1137	1451	1487	1461	1470	1445	
Temperature (deg. C)	17.2	14.6	16.2	12.8	16.9	13	15.1	16.8	13.7	14.4	9.6	12.2	14.4	10.8	11.9	8.7	10.7	14	8.9	20.6	6.4	14.3	23.3	8.9	
Turbidity (NTU)	14.6	2.57	4.53	1.45	2.31	9.59	1.16	1	4.52	5.63	46.4	15.5	13.9	86.6	19.7	80.8	18.1	14	17.8	22.4	7.87	4.63	4.22	1.88	

Inorganic Compounds

Aluminum		0.0462 J				0.404	0.0579 J				2.09	0.783				2.95	0.603				0.303	0.141		
Antimony		0.06 U				0.06 U	0.06 U				0.06 U	0.06 U				0.0077 J	0.06 U				0.06 U	0.06 U		
Arsenic		0.01 U				0.01 U	0.01 U				0.0048 J	0.01 U				0.0062 J	0.0041 J				0.01 U	0.01 U		
Barium		0.0101 J				0.0142 J	0.0115 J				0.0204	0.0128 J				0.04	0.0311				0.0182 J	0.0174 J		
Beryllium		0.003 U				0.003 U	0.003 U				0.003 U	0.003 U				0.003 U	0.003 U				0.003 U	0.003 U		
Boron		0.166 J				0.196 J	0.187 J				0.166 J	0.159 J				0.114 J	0.108 J				0.1 J	0.12 J		
Cadmium	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Calcium	321	330	324	298	610	623	621	594	554	554	577	548	552	514	185	190	188	190	189	216	231	219	231	208
Chromium		0.0007 J				0.01 U	0.0011 J				0.0032 J	0.002 J				0.0024 J	0.0007 J				0.01 U	0.0026 J		
Chromium, hexavalent		0.01 U,*				0.01 U	0.01 U,*									0.01 U	0.01 U,*				0.01 U	0.01 U,*		
Cobalt		0.05 U				0.05 U	0.05 U				0.05 U	0.05 U				0.05 U	0.001 J				0.05 U	0.05 U		
Copper		0.02 U				0.02 U	0.02 U				0.02 U	0.02 U				0.02 U	0.02 U				0.02 U	0.02 U		
Iron	0.62	0.0311 J	0.11 B	0.05 J	0.1 U	0.372	0.042 J	0.03 BJ	0.19	3.02	3.22	1.51	0.84	5.61	1.43	5.47	2.55	2.27	2.63	1.42	1.28	0.562	0.98	1.25
Lead	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Magnesium	163	164	156	160	250	252	246	234	251	189	189	191	178	192	49.7	48.7	45.8	45	45.3	73	73.5	72.6	70.7	72.5
Manganese	0.068	0.0104	0.011	0.007 J	0.01 U	0.0191	0.0067 J	0.01 U	0.013	8.1	0.352	0.241	0.084	0.261	1.93	1.93	2.06	1.95	1.85	4.18	1.66	0.557	1.64	1.48
Mercury		0.0002 U				0.0002 U	0.0002 U				0.0002 U	0.0002 U				0.0002 U	0.0002 U				0.0002 U	0.0002 U		
Nickel		0.04 U				0.04 U	0.04 U				0.04 U	0.04 U				0.04 U	0.04 U				0.04 U	0.04 U		
Potassium	10.4	10.7	10	9.3	15.5	16.4	15.1	14.2	13.2	19.8	20.1	18.8	17.7	17.9	13.9	13.1	10.1	9.6	9.2	6.9	6.97	6.57	6.2	6.1
Selenium		0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U		
Silver		0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U		
Sodium	60.3	58.8	58.9	58.2	118	127	112	114	110	104	111	104	100	98.9	95.4	99.8	93.6	90.2	84	52.2	58.8	54.2	50.7	52.6
Thallium		0.0154				0.0136	0.0225				0.0213	0.0222				0.01 U	0.01 U				0.01 U	0.01 U		
Vanadium		0.05 U				0.05 U	0.05 U				0.0035 J	0.05 U				0.0045 J	0.05 U				0.05 U	0.05 U		
Zinc		0.02 U				0.02 U	0.02 U				0.0297	0.0133 J				0.0112 J	0.02 U				0.02 U	0.02 U		

Volatile Organic Compounds

1,1,1,2-Tetrachloroethane		0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,1,1-Trichloroethane		0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,1,2,2-Tetrachloroethane		0.005 U				0.005 U	0.005 U				0.005 U	0.005 UJ				0.005 U	0.005 U				0.005 U	0.005 UJ		
1,1,2-Trichloroethane		0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,1-Dichloroethane		0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,1-Dichloroethene		0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,2,3-Trichloropropane		0.005 U				0.005 U	0.005 U				0.005 U	0.005 UJ				0.005 U	0.005 U				0.005 U	0.005 UJ		
1,2-Dibromo-3-chloropropane		0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,2-Dibromoethane		0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,2-Dichlorobenzene		0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,2-Dichloroethane		0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,2-Dichloropropane		0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
1,4-Dichlorobenzene		0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
2-Butanone (MEK)		0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U		
2-Hexanone		0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U		
4-Methyl-2-pentanone		0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U		
Acetone		0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U		

Current and Historic Overburden Well Analytical Results
Hyland Facility
Angelica, New York
(mg/L except where noted)

Parameter	MW-40A 8/6-7/2018	MW-40A 4/23/2019	MW-40A 7/29-30/2019	MW-40A 11/5-11/2019	MW-41A 8/6-7/2018	MW-41A 11/12-13/2018	MW-41A 4/23-24/2019	MW-41A 7/29-30/2019	MW-41A 11/5/2019	MW-42A 8/6-9/2018	MW-42A 11/12/2018	MW-42A 4/24/2019	MW-42A 7/29-30/2019	MW-42A 11/5-7/2019	MW-45A 8/7/2018	MW-45A 11/13-18/2018	MW-45A 4/23-24/2019	MW-45A 7/29-30/2019	MW-45A 11/5/2019	MW-47A 8/7/2018	MW-47A 11/15/2018	MW-47A 4/24/2019	MW-47A 8/1/2019	MW-47A 11/6/2019
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Volatiles Organic Compounds (con't)

Acrylonitrile		0.1 U				0.1 U	0.1 U					0.1 U	0.1 U				0.1 U	0.1 U				0.1 U	0.1 U		
Benzene		0.005 U				0.005 U	0.005 U					0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Bromochloromethane		0.005 U				0.005 U	0.005 U					0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Bromodichloromethane		0.005 U				0.005 U	0.005 U					0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Bromoform		0.005 U				0.005 U	0.005 U					0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Bromomethane		0.005 U				0.005 U	0.005 U					0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Carbon disulfide		0.01 U				0.01 U	0.01 U					0.01 U	0.01 U				0.00033 J	0.01 U				0.01 U	0.01 U		
Carbon tetrachloride		0.005 U				0.005 U	0.005 U					0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Chlorobenzene		0.005 U				0.005 U	0.005 U					0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Chloroethane		0.005 U				0.005 U	0.005 U					0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Chloroform		0.005 U				0.005 U	0.005 U					0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Chloromethane		0.005 U				0.005 U	0.005 U					0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
cis-1,2-Dichloroethene		0.005 U				0.005 U	0.005 U					0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
cis-1,3-Dichloropropene		0.005 U				0.005 U	0.005 U					0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Dibromochloromethane		0.005 U				0.005 U	0.005 U					0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Dibromomethane		0.005 U				0.005 U	0.005 U					0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Dichloromethane (Methylene chloride)		0.005 U				0.005 U	0.005 U					0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Ethyl benzene		0.005 U				0.005 U	0.005 U					0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Iodomethane		0.01 U				0.01 U	0.01 U					0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U		
m&p-Xylene		0.005 U				0.005 U	0.005 U					0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
o-Xylene		0.005 U				0.005 U	0.005 U					0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Styrene		0.005 U				0.005 U	0.005 U					0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Tetrachloroethene		0.005 U				0.005 U	0.005 U					0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Toluene		0.005 U				0.005 U	0.005 U					0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
trans-1,2-Dichloroethene		0.005 U				0.005 U	0.005 U					0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
trans-1,3-Dichloropropene		0.005 U				0.005 U	0.005 U					0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
trans-1,4-Dichloro-2-butene		0.005 U				0.005 U	0.005 U					0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Trichloroethene		0.005 U				0.005 U	0.005 U					0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Trichlorofluoromethane		0.005 U				0.005 U	0.005 U					0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		
Vinyl acetate		0.01 U				0.01 U	0.01 U					0.01 U	0.01 U				0.01 U	0.01 U				0.01 U	0.01 U		
Vinyl chloride		0.005 U				0.005 U	0.005 U					0.005 U	0.005 U				0.005 U	0.005 U				0.005 U	0.005 U		

General Chemistry

Alkalinity		393	382	379	366	357	364	363	365	392			370	364	254	238	243	240	232	283	246	240	249	246
Ammonia Nitrogen	0.05 U	0.05 U	0.05 U	0.006 J	0.135	0.036 J	0.05 U	0.05 U	0.05 U	1.68			0.05 U	0.05 U	0.35	0.136	0.073	0.404	0.262	1.55	0.223	0.05 U	0.418	0.18
Biochemical Oxygen Demand		2 U	2 U	2 U	4.6	4.7	2 U	2 U	2 U	6.8			2 U	2 U	12	10.4	16.9	17.7	14.6	2.5	2.8	2 U	2 U	2
Bromide	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chemical Oxygen Demand	5 U	9.8	6.6	4.2 J	32	13.7	14	9.3	7.7	21.8			8.8	4.2 J	58.9	58.9	71.6	64.3	47.7	14	6.8	5 U	5 U	4.9 J
Chloride	3.5	3.1	2.9	3.6	3.1	2.9	2.5	2.5	3.4	4.3			3	3.9	17.7	14.6	13.4	12.3	12.6	3	2.5	2.4	2.7	3.1
Color (True) (C.U.)		4				16	25			9						22	19				24	25		
Cyanide		0.01 U				0.01 U	0.01 U			0.01 U	0.01 U					0.01 U	0.01 U				0.01 U	0.01 U		
Hardness	1470	1500	1450	1400	2550	2590	2560	2450	2420	2160	2220	2150	2110	2080	666	674	659	659	658	839	878	847	867	819
Nitrate Nitrogen	0.3 J	0.2 J	1 U	0.3 J	0.6 J	0.7 J	0.6 J	0.5 J	0.6 J	0.5 J			0.3 J	0.4 J	1 U	1 U	1 U	1 U	0.4 J	1 U	1 U	1 U	1 U	0.4 J
pH of Color Analysis		7.5				7.03	7.37				7.06					7.34	7.56				7.54 *	7.42		
Sulfate	948	1190	1180	1180	2010	2030	2130	2680	2330	1560			1890	1950	550	545	557	556	572	559	656	757	658	703
Total Dissolved Solids	2070	2060	2020	2000	3700	3690	3670	3590	3610	3210			1540	3170	1230	1160	1140	1120	1110	1280	1290	1270	1260	1230
Total Kjeldahl Nitrogen	0.13 J	0.11 J	0.2 U	0.22	1.24	0.57	0.18 J	0.15 J	0.11 J	2.59			0.2 J	0.18 J	0.72	0.65	0.61	0.7	0.44	2.22	0.56	0.2 U	0.6	0.31
Total Organic Carbon (TOC)		1.1	1.1	1 J	4.5	5.6	2.6	2.3	2.1	7.2			1.5	1.1	24.3	18.2	23.6	22	15.9	3.1	2.2	1.5	1.9	1.6
Total Phenolics		0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0012 J	0.0025 J			0.005 U	0.005 U	0.0038 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U

Notes:

- U - Concentration not detected at specified detection limit
- J/U/J/B/J - Estimated value
- B - Analyte also detected in associated method blank
- * - Denotes analysis was performed outside holding time.

100	Parameter exceeds Class GA Std but is below EWQV
100	Parameter exceeds both EWQV (mean) and Class GA Std
100	Parameter exceeds EWQV plus three std deviations
100	Parameter exceeds Class GA and EWQV + three standard deviations

Table 8 Continued

**Groundwater Pre-Operational Water Quality Data
and NYSDEC Water Quality Standards
Hyland Facility
Angelica, New York
(mg/L except where noted)**

Parameter	Overburden Well Pre-Operational Water Quality Data			Class GA Standard
	Mean	Standard Deviation	Mean +3 Standard Deviations	

Field Parameters

Field pH (std. units) Lower limit	7.27	0.32	6.31	6.5 - 8.5
Field pH (std. units) Upper limit	NM	NM	NM	NM
ORP (mV)	47.8	131	440	
Specific Conductivity (us/cm)	2004	891	4678	
Turbidity (NTU)	118	215	762	5

Inorganic Compounds

Aluminum	2.41/10.3	6.73/20.7	22.6/72.5	
Antimony	0.0103/0.0088	0.0066/0.0047	0.0299/0.0228	0.003
Arsenic	0.007/0.008	0.006/0.006	0.023/0.024	0.025
Barium	0.038/0.155	0.035/0.142	0.144/0.582	1
Beryllium	0.0015/0.0015	0.0002/0.0001	0.0021/0.0019	
Boron	0.23/0.279	0.06/0.169	0.39/0.786	1
Cadmium	0.002/0.0024	0.001/0.0005	0.004/0.0039	0.005
Calcium	261/277	140/148	682/722	
Chromium	0.0056/0.0154	0.0111/0.023	0.0388/0.0846	0.05
Chromium, hexavalent	0.006/0.008	0.004/0.005	0.018/0.021	
Cobalt	0.012/0.02	0.006/0.01	0.028/0.05	
Copper	0.01/0.0221	0.008/0.0211	0.035/0.0854	0.2
Iron	3.33/5	7.32/3.65	25.3/16	0.3
Lead	0.003/0.005	0.003/0.0055	0.012/0.0215	0.025
Magnesium	90.3/105	56.5/57.6	260/278	
Manganese	0.88/1.36	0.84/1.5	3.4/5.86	0.3
Mercury	0.0001/0.0001	0/0	0.0001/0.0001	0.0007
Nickel	0.02/0.03	0.014/0.029	0.06/0.116	0.1
Potassium	17.7/19.4	11.2/9.59	51.3/48.2	
Selenium	0.0036/0.0028	0.0048/0.0016	0.018/0.0077	0.01
Silver	0.005/0.005	0.002/0	0.01/0.005	0.05
Sodium	76.7/80.9	41.8/53.1	202/240	20
Thallium	0.004/0.0074	0.002/0.006	0.009/0.0254	
Tin	0.3/0.4	0.2/0.1	0.9/0.6	
Vanadium	0.017/0.024	0.01/0.02	0.047/0.083	
Zinc	0.033/0.092	0.041/0.118	0.156/0.445	

Wet Chemistry

Alkalinity	266	71.5	480	
Ammonia Nitrogen	0.22	0.09	0.49	2
Biochemical Oxygen Demand	2.3	1.8	7.7	
Bromide	0.7	0.4	1.9	
Chemical Oxygen Demand	9.2	3.1	19	
Chloride	5.4	4.78	19.7	250
Color (True) (C.U.)	90	108	413	15
Cyanide	0.005	0.001	0.007	0.2
Hardness	1010	579	2746	
Nitrate Nitrogen	0.24	0.443	1.57	10
Sulfate	1023	947	3864	250
Sulfide	0.14	0.23	0.84	
Total Dissolved Solids	1475	947	4316	500
Total Kjeldahl Nitrogen	0.67	1.2	4.28	
Total Organic Carbon (TOC)	3.7	3	12.7	
Total Phenolics	0.0032	0.0027	0.0115	0.001

Notes:

Pre-operational data from wells MW-14, MW-19, MW-26, MW-31, MW-36A, MW-37, MW-37A, MW-38, MW-38A, MW-39A, MW-40, MW-40A, MW-41A, MW-42A and MW-47A; with the exception of Tin which is the preceding list of wells plus MW-15, MW-15A, MW-16, MW-17, MW-20, MW-20A, MW-21, MW-21R, MW-21AR, MW-22, MW-23, MW-27, MW-27A, MW-28, MW-28A, MW-29, MW-29A, MW-30, MW-30A, MW-F, MW-G and MW-H.

Table 9

Current and Historic Surface Water Analytical Results
Hyland Facility
Angelica, New York
(mg/L except where noted)

Parameter	DB-1			DB-2	DB-3					East Perimeter Ditch	Class C Standard
	11/15/2018	4/22/2019	11/7/2019	8/20/2018	8/20/2018	11/15/2018	4/22/2019	8/5/2019	11/11/2019	4/22/2019	

Field Parameters

Dissolved Oxygen	11.96	7.97	8.56			16.02	12	10.08	13.27	11.96	Not < 5
Field pH (std. units)	7.5	7.7	7.68	7.94	7.99	7.58	7.77	7.67	7.51	7.94	6.5 - 8.5
ORP (mV)	159.9	127.7	156.1	79.3	91.7	154.4	126.9	45.6	98.7	123.6	
Specific Conductivity (us/cm)	203.1	219	203.5	347.9	327.8	320.4	278.7	253.2	290.3	235.6	
Temperature (deg. C)	3.6	10.5	6	20.4	20.8	2.8	11.5	21.1	3.3	8.2	
Turbidity (NTU)	201	184	172	71.1	79.8	95.3	183	130	83.4	4.73	

Inorganic Organic

Aluminum	7.08	10.1				11.9	10.2			0.0933 J	
Antimony	0.06 U	0.06 U				0.06 U	0.06 U			0.06 U	
Arsenic	0.01 U	0.0057 J				0.0082 J	0.0046 J			0.01 U	
Barium	0.0704	0.0956				0.103	0.09			0.021	
Beryllium	0.0003 J	0.0004 J				0.0005 J	0.0004 J			0.003 U	
Boron	0.038 J	0.0356 J				0.0463 J	0.0436 J			0.015 J	1
Cadmium	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	
Calcium	46.1	29.7	30.6	52.3	50.8	32	40.4	33.9	42.3	35	
Chromium	0.0069 J	0.0105				0.012	0.0104			0.0007 J	
Chromium, hexavalent	0.05 U	0.05 U,*				0.01 U	0.05 U,*			0.01 U,*	
Cobalt	0.0018 J	0.0026 J				0.0034 J	0.0023 J			0.05 U	0.005
Copper	0.0077 J	0.0096 J				0.0155 J	0.0096 J			0.02 U	
Iron	4.8	7.2	8.95	2.98	2.91	9.8	7.02	5.04	4.33	0.0999 J	
Lead	0.0031 J	0.0035 J	0.005 J	0.05 U	0.05 U	0.0089 J	0.0036 J	0.05 U	0.05 U	0.05 U	0.008
Magnesium	13.5	7.08	6.4	13.8	11.7	7.34	11.1	9	10.3	8.77	
Manganese	0.187	0.171	0.221	0.176	0.093	0.202	0.138	0.127	0.129	0.0116	
Mercury	0.0002 U	0.0002 U				0.0002 U	0.0002 U			0.0002 U	0.0000007
Nickel	0.04 U	0.04 U				0.04 U	0.04 U			0.04 U	0.0082
Potassium	5.42	5.93	7.6	6.2	5.1	6.82	6.69	4.4	5.7	1.36 J	
Selenium	0.01 U	0.01 U				0.01 U	0.01 U			0.01 U	
Silver	0.01 U	0.01 U				0.01 U	0.01 U			0.01 U	
Sodium	4.79	4.15	3.2	4.1	5.9	3.48	5.74	4	3.8	3.53	
Thallium	0.01 U	0.01 U				0.01 U	0.01 U			0.01 U	0.008
Vanadium	0.0126 J	0.0176 J				0.0216 J	0.0173 J			0.05 U	0.014
Zinc	0.0272	0.0394				0.0621	0.0338			0.02 U	

Table 9

Current and Historic Surface Water Analytical Results
Hyland Facility
Angelica, New York
(mg/L except where noted)

Parameter	DB-1			DB-2	DB-3					East Perimeter Ditch	Class C Standard
	11/15/2018	4/22/2019	11/7/2019	8/20/2018	8/20/2018	11/15/2018	4/22/2019	8/5/2019	11/11/2019	4/22/2019	

Volatile Organic Compounds

1,1,1,2-Tetrachloroethane	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
1,1,1-Trichloroethane	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
1,1,2,2-Tetrachloroethane	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
1,1,2-Trichloroethane	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
1,1-Dichloroethane	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
1,1-Dichloroethene	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
1,2,3-Trichloropropane	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
1,2-Dibromo-3-chloropropane	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
1,2-Dibromoethane	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
1,2-Dichlorobenzene	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
1,2-Dichloroethane	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
1,2-Dichloropropane	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
1,4-Dichlorobenzene	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
2-Butanone (MEK)	0.00079 J	0.01 U				0.01 U	0.01 U			0.01 U	
2-Hexanone	0.01 U	0.01 U				0.01 U	0.01 U			0.01 U	
4-Methyl-2-pentanone	0.01 U	0.01 U				0.01 U	0.01 U			0.01 U	
Acetone	0.01 U	0.01 U				0.01 U	0.0021 J			0.01 U	
Acrylonitrile	0.1 U	0.1 U				0.1 U	0.1 U			0.1 U	
Benzene	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
Bromochloromethane	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
Bromodichloromethane	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
Bromoform	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
Bromomethane	0.005 UJ	0.005 U				0.005 UJ	0.005 U			0.005 U	
Carbon disulfide	0.01 U	0.01 U				0.01 U	0.01 U			0.01 U	
Carbon tetrachloride	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
Chlorobenzene	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	0.005
Chloroethane	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
Chloroform	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
Chloromethane	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
cis-1,2-Dichloroethene	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
cis-1,3-Dichloropropene	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
Dibromochloromethane	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
Dibromomethane	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	

Table 9

Current and Historic Surface Water Analytical Results
Hyland Facility
Angelica, New York
(mg/L except where noted)

Parameter	DB-1			DB-2	DB-3					East Perimeter Ditch	Class C Standard
	11/15/2018	4/22/2019	11/7/2019	8/20/2018	8/20/2018	11/15/2018	4/22/2019	8/5/2019	11/11/2019	4/22/2019	

Volatile Organic Compounds (con't)

Dichloromethane (Methylene chloride)	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	0.2
Ethyl benzene	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
Iodomethane	0.01 UJ	0.01 UJ				0.01 UJ	0.01 UJ			0.01 UJ	
m&p-Xylene	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
o-Xylene	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
Styrene	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
Tetrachloroethene	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
Toluene	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	6
trans-1,2-Dichloroethene	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
trans-1,3-Dichloropropene	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
trans-1,4-Dichloro-2-butene	0.005 U	0.005 UJ				0.005 U	0.005 UJ			0.005 UJ	
Trichloroethene	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	0.04
Trichlorofluoromethane	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	
Vinyl acetate	0.01 U	0.01 U				0.01 U	0.01 U			0.01 U	
Vinyl chloride	0.005 U	0.005 U				0.005 U	0.005 U			0.005 U	

General Chemistry

Alkalinity	104	76.4	76.4	109	91.2	78.8	88.8	72.8	92	112	
Ammonia Nitrogen	0.041 J	0.04 J	0.17	0.044 J	0.05 U	0.05 U	0.05 U	0.05 U	0.107	0.05 U	2
Biochemical Oxygen Demand	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	
Bromide	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	
Chemical Oxygen Demand	9.5	24.8	9.8	17.2	5.8	9.8 J	15.9	5 U	11.5	20.3	
Chloride	3.7	4.9	4.9	4.5	7.4	4.5	6.7	5.2	4.9	1.2 J	
Color (True) (C.U.)	290	140				165	125			17	
Cyanide	0.01 U	0.01 U				0.01 U	0.01 U			0.01 U	9
Hardness	171	103	103	188	175	110	147	122	148	124	
Nitrate Nitrogen	1 U	1 U	0.6 J	0.4 J	0.4 J	0.4 J	1 U	1 U	0.7 J	1 U	
pH of Color Analysis	7.39 *	7.53 *				6.83 *	7.83 *			7.76 *	
Sulfate	18.6	18.7	18.7	76.3	75.4	55.4	44.8 J	47.3	55.6	14.3	
Total Dissolved Solids	17.3 B	188	203	261	241	208	248	199	227	152	500
Total Kjeldahl Nitrogen	0.73	0.62	0.77	0.87	0.53	0.55	0.55	0.31	0.62	0.2 U	
Total Organic Carbon (TOC)	2.3	3	2.8	7.1	4.3	2.1	3.3	2.6	3.2	1	
Total Phenolics	0.005 U	0.005 U	0.005 U	0.0043 J	0.0026 J	0.005 U	0.005 U	0.005 U	0.0016 J	0.005 U	

Notes:

Class C Standard - NYSDEC Class C Surface Water Standard
Concentrations in **bold** exceed Class C Standards

U - Concentration not detected at specified detection limit

J/UJ - Estimated value

B - Analyte detected in associated method blank

* - Analysis performed out of hold time

Table 10

**Current and Historic Sediment Analytical Results
Hyland Facility
Angelica, New York
(mg/kg except where noted)**

Parameter	East Perimeter Ditch 4/25/2019
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Inorganic Compounds

Aluminum	13700 J
Antimony	14.3 UJ
Arsenic	14.5 J
Barium	171 J
Beryllium	0.764 J
Boron	24.1 J
Cadmium	0.74 J
Calcium	10600 J
Chromium	28.7 J
Chromium, hexavalent	1 UJ
Cobalt	13.9 J
Copper	52.4 J
Iron	33900 J
Lead	41.5 J
Magnesium	7440 J
Manganese	1040 J
Mercury	0.081 J
Nickel	30.1 J
Potassium	2930 J
Selenium	2.4 UJ
Silver	2.4 UJ
Sodium	140 J
Thallium	2.4 UJ
Vanadium	29 J
Zinc	194 J

Volatile Organic Compounds

1,1,1,2-Tetrachloroethane	0.013 UJ
1,1,1-Trichloroethane	0.013 UJ
1,1,2,2-Tetrachloroethane	0.013 UJ
1,1,2-Trichloroethane	0.013 UJ
1,1-Dichloroethane	0.013 UJ
1,1-Dichloroethene	0.013 UJ
1,2,3-Trichloropropane	0.013 UJ
1,2-Dibromo-3-chloropropane	0.013 UJ
1,2-Dibromoethane	0.013 UJ
1,2-Dichlorobenzene	0.013 UJ
1,2-Dichloroethane	0.013 UJ
1,2-Dichloropropane	0.013 UJ
1,4-Dichlorobenzene	0.013 UJ
2-Butanone (MEK)	0.044 J-
2-Hexanone	0.013 UJ
4-Methyl-2-pentanone	0.00072 J
Acetone	0.14 J-
Acrylonitrile	0.063 UJ
Benzene	0.013 UJ

Table 10

**Current and Historic Sediment Analytical Results
Hyland Facility
Angelica, New York
(mg/kg except where noted)**

Parameter	East Perimeter Ditch 4/25/2019
-----------	-----------------------------------

Volatile Organic Compounds (con't)

Bromochloromethane	0.013 UJ
Bromodichloromethane	0.013 UJ
Bromoform	0.013 UJ
Bromomethane	0.013 UJ
Carbon disulfide	0.0026 J
Carbon tetrachloride	0.013 UJ
Chlorobenzene	0.013 UJ
Chloroethane	0.013 UJ
Chloroform	0.013 UJ
Chloromethane	0.013 UJ
cis-1,2-Dichloroethene	0.013 UJ
cis-1,3-Dichloropropene	0.013 UJ
Dibromochloromethane	0.013 UJ
Dibromomethane	0.013 UJ
Dichloromethane (Methylene chloride)	0.013 UJ
Ethyl benzene	0.013 UJ
Iodomethane	0.025 UJ
m&p-Xylene	0.025 UJ
o-Xylene	0.013 UJ
Styrene	0.013 UJ
Tetrachloroethene	0.013 UJ
Toluene	0.47
trans-1,2-Dichloroethene	0.013 UJ
trans-1,3-Dichloropropene	0.013 UJ
trans-1,4-Dichloro-2-butene	0.013 UJ
Trichloroethene	0.013 UJ
Trichlorofluoromethane	0.013 UJ
Vinyl acetate	0.025 UJ
Vinyl chloride	0.013 UJ

Wet Chemistry

Alkalinity	2000
Ammonia Nitrogen	161
Bromide	24 U
Chemical Oxygen Demand	188000
Chloride	72 U
Cyanide	0.48 UJ
Nitrate Nitrogen	24 U
pH, Laboratory (Std. Units)	6.99 H
Sulfate	42 J
Total Kjeldahl Nitrogen	2510
Total Organic Carbon (TOC)	74500
Total Phenolics	0.96
Total Solids	39.5

Notes:

U - Concentration not detected at specified detection limit

J/UJ - Estimated value

H - Analysis performed out of "immediate" hold time criteria.

Table 12

2019 Residential Water Supply Analytical Results
Hyland Facility
Angelica, New York
(mg/L where noted)

Parameter	Goodliff Trailer Well 11/11/2019	Goodliff House Spring 11/11/2019	Gordon Camp 2 11/12/2019	H Gordon House 11/11/2019	Hutchison House 11/11/2019	Shay House Post Filter 11/12/2019	Shay Spring 11/12/2019	Swineford House 11/12/2019	Class GA Standard
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Field Parameters

Field pH (std. units)	8.1	7.46	7.44	7.46	8.11	6.58	7.15	6.8	8.5
ORP (mV)	116.3	150.1	-77	122.2	-52.4	208.5	161.4	231.2	
Specific Conductivity (us/cm)	325.8	647.6	574.5	496.8	1088	513.8	494.5	212.9	
Temperature (deg. C)	10.5	6.2	12.6	10.3	10	19.3	10.9	11.7	
Turbidity (NTU)	15.2	0.6	1.03	0.23	3.45	0.22	0.23	0.32	5

Inorganic Compounds

Cadmium	0.0006 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005
Calcium	9.6	89.6	78.2	76.1	19.1	1 U	57.5	24.5	
Iron	1.86	0.11 B	2.36	0.1 U	1.41	0.02 BJ	0.02 BJ	0.03 BJ	0.3
Lead	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.025
Magnesium	20.9	29.5	26	20.3	6.4	0.03 J	14.7	6.3	
Manganese	0.014	0.145	0.157	0.01 U	0.08	0.01 U	0.01 U	0.006 J	0.3
Potassium	3.4	2.1	2.1	2.7	1.2 J	0.3 J	1.7 J	5.3	
Sodium	39.8	32.5	22.3	10.6	248	116	23.4	5.9	20

General Chemistry

Alkalinity	186	251	270	237	344	127	121	68.4	
Ammonia Nitrogen	0.217	0.05 U	0.102	0.004 J	0.221	0.05 U	0.05 U	0.05 U	2
Biochemical Oxygen Demand	2.1	2 U	2 U	2 U	2 U	2 U	2 U	2 U	
Bromide	1 U	1 U	1 U	1 U	2.2	1 U	1 U	1 U	
Chemical Oxygen Demand	10.8	9.5	5 U	4.9 J	4.6 J	5 U	5 U	5 U	
Chloride	3.3	3.6	2.3	3.5	171	85.9	85.1	6.8	250
Hardness	110	345	302	273	74.3	6.62 U	204	87.1	
Nitrate Nitrogen	0.4 J	0.4 J	1 U	1 U	1 U	0.4 J	0.4 J	2	10
Sulfate	2 U	136	60.3	47.6	23.1	18.2	18	20.3	250
Total Dissolved Solids	198	486	372	329	711	330	294	136	500
Total Kjeldahl Nitrogen	0.38	0.2 U	0.2 U	0.17 J	0.28	0.2 U	0.14 J	0.14 J	
Total Organic Carbon (TOC)	1.6	1.2	1 U	1 U	0.6 J	1 U	1 U	0.5 J	
Total Phenolics	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.001

Notes:

Class GA Standard - NYSDEC Class GA Groundwater Standard

Concentrations in **bold** exceed Class GA Standards

U - Concentration not detected at specified detection limit

J - Estimated value

Table 13

**Fourth Quarter 2019 Field Duplicate Sample Comparison
Hyland Facility
Angelica, New York
(mg/L)**

Parameter	MW34-1119	DUP1-1119
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Inorganic Compounds

Cadmium	0.005 U	0.005 U
Calcium	49.4	48.4
Iron	0.2	0.19
Lead	0.05 U	0.05 U
Magnesium	14.7	14.5
Manganese	0.137	0.135
Potassium	1.3 J	1.3 J
Sodium	75.4	74

General Chemistry

Alkalinity	236	236
Ammonia Nitrogen	0.318	0.32
Biochemical Oxygen Demand	2 U	2 U
Bromide	1 U	1 U
Chemical Oxygen Demand	5 U	5 U
Chloride	21.3	21.7
Hardness	184	180
Nitrate Nitrogen	1 U	1 U
Sulfate	64.8	65.9
Total Dissolved Solids	384	387
Total Kjeldahl Nitrogen	0.29	0.4
Total Organic Carbon (TOC)	1 U	1 U
Total Phenolics	0.0014 J	0.0013 J

Notes:

U - Concentration not detected at specified detection limit

J/BJ - Estimated value

Table 14

Fourth Quarter 2019 Equipment Blank Analytical Results
Hyland Facility
Angelica, New York
(mg/L)

Parameter	EB1-1119
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Inorganic Compounds

Cadmium	0.005 U
Calcium	1 U
Iron	0.02 BJ
Lead	0.05 U
Magnesium	1 U
Manganese	0.01 U
Potassium	2 U
Sodium	1 U

General Chemistry

Alkalinity	2.4
Ammonia Nitrogen	0.05 U
Biochemical Oxygen Demand	2 U
Bromide	1 U
Chemical Oxygen Demand	4.2 J
Chloride	2 U
Hardness	6.62 U
Nitrate Nitrogen	1 U
Sulfate	2 U
Total Dissolved Solids	9 J
Total Kjeldahl Nitrogen	0.71
Total Organic Carbon (TOC)	1 U
Total Phenolics	0.005 U

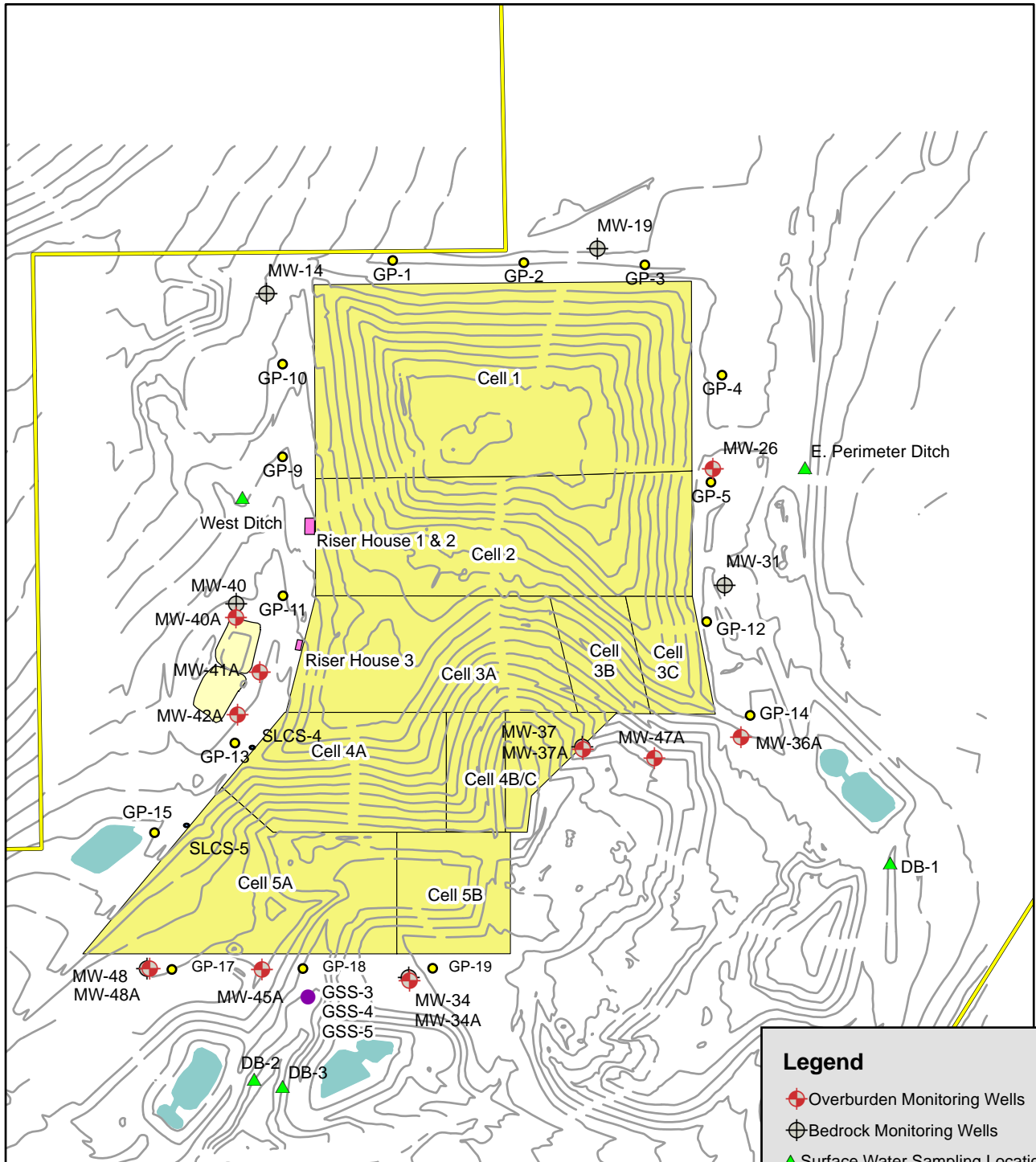
Notes:

U - Concentration not detected at specified detection limit.

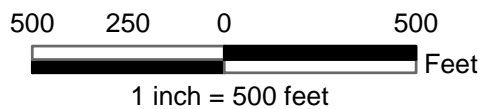
J/BJ - Estimated value

Figures

ENVIRONMENTAL MONITORING LOCATIONS



November 2014 Topographic Map
 Riser House 1&2 includes sampling points for Cells 1&2 GSS & SLCS.
 Riser House 3 includes sampling points for Cell 3 SLCS.



Legend

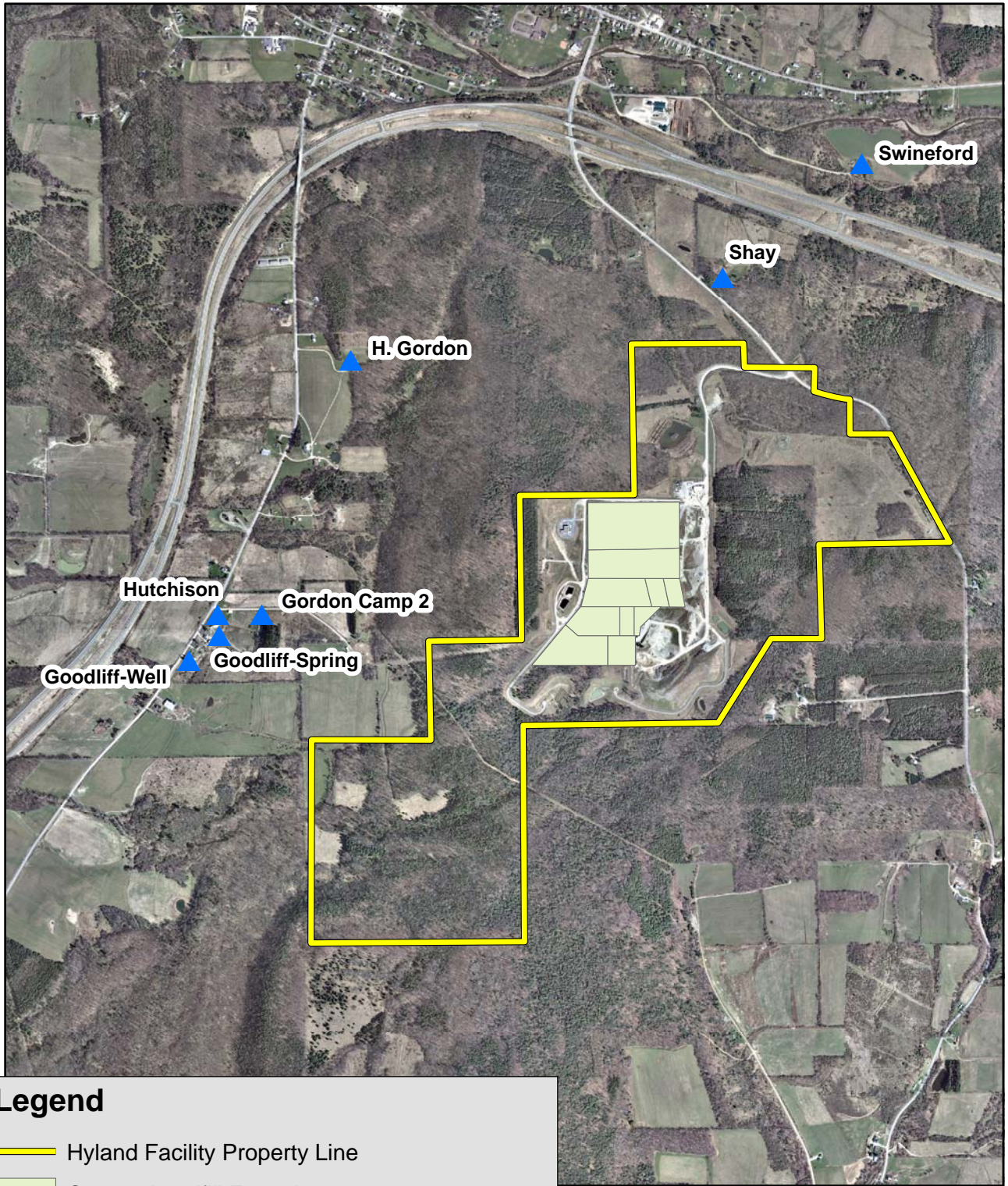
- ◆ Overburden Monitoring Wells
- ⊕ Bedrock Monitoring Wells
- ▲ Surface Water Sampling Locations
- Gas Probes
- Hyland Facility Property Line
- Surface Water Detention Basins
- Riser House
- Leachate Ponds
- Existing Landfill Cells



ON-SITE GEOLOGICAL SERVICES, D.P.C.
 72 Railroad Avenue Wellsville, NY 14895




FIGURE NO.	1
PROJECT	Hyland Facility
DOCUMENT	Monitoring Report
FILE / DATE	Samplc.mxd / 02.18.20

2019 RESIDENTIAL WATER SUPPLY SAMPLING LOCATIONS



2012 Ariel Photograph

Legend

-  Hyland Facility Property Line
-  Current Landfill Footprint
-  Approximate Residential Water Supply Location

2,000 1,000 0 2,000 Feet

1 inch = 2,000 feet



ON-SITE GEOLOGICAL SERVICES, D.P.C.

72 Railroad Avenue Wellsville, NY 14895

FIGURE NO.	2
PROJECT	Hyland Facility
DOCUMENT	2019 4Q REPORT
FILE NO.	RES_LOC_2019.MXD

Appendix A

Field Forms

On-Site Technical Services, Inc.

Groundwater Purging and Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-4-19

Monitoring Well: MW-14 Sample ID: MW14-1119

Arrival Time: 1447

Weather Conditions

Temp. 48° F () Sunny (X) Partly Cloudy () Cloudy () Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-15 mph

Well Condition Checklist

Bump posts: NA Pro. casing/lock: OK Surface pad: OK

Well Visibility (paint): OK Well Label: OK Comment: _____

Depth & Purging Information

TD: 41.50 ft - SWL: 38.50 ft x 0.16 if 2" or 0.65 if 4" = 1 Well Volume: 0.4 gals

Start Purge: 1450 Purging Method: () Bail () Peristaltic () Dedicated Bladder () Non-Dedicated Bladder # _____

Pumping Rate: NA Start Sampling: 0845 Purge Duration: 5 min Purge Vol: 0.5 gals.

Field Parameters

Meters: YSI (sn: 170108273), Hach 2100P (sn: 12410) Measured in: () Flow Cell (X) Cup

Purge (gal)	Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)	DTW (ft)
<u>0.5</u>	<u>1455</u>	<u>Bailed to Bottom</u>	<u>to Bottom</u>					
<u>11/5</u>	<u>0845</u>	<u>7.61</u>	<u>311.1</u>	<u>1.80</u>	<u>NA</u>	<u>9.9</u>	<u>144.4</u>	

Stabilization Criteria: 1) field parameters ± 0.1 pH, ±3% conductivity, ±10 mv ORP, ±10% DO, ±10% Turbidity; 2) 3 well volumes or dry

Sample Collection Method: Bailer Sample clarity/color: clear No Color

Sample Odor: (Y) or (N) Explain: _____ Other Observations/Comments: _____

Analysis Requested: Routine Number of Containers: 6

Well Sampling Completion: Time 0858 Date 11-5-19 Samplers K Dye

MS/MSD

On-Site Technical Services, Inc.

Groundwater Purging and Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-6-19

Monitoring Well: MW-19 Sample ID: MW19-1119

Arrival Time: 0758

Weather Conditions

Temp. 32° F Sunny () Partly Cloudy () Cloudy () Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-5 mph

Well Condition Checklist

Bump posts: NA Pro. casing/lock: OK Surface pad: OK

Well Visibility (paint): OK Well Label: OK Comment: _____

Depth & Purging Information

TD: 52.68 ft - SWL: 44.84 ft x 0.16 if 2" or 0.65 if 4" = 1 Well Volume: 1.2 gals

Start Purge: 0810 Purging Method: () Bail () Peristaltic () Dedicated Bladder Non-Dedicated Bladder # 3

Pumping Rate: 500ml / 205^{sec} Start Sampling: 0905 Purge Duration: 55min Purge Vol: 1.75 gals.

Field Parameters

Meters: YSI (sn: 17D108273), Hach 2100P (sn: 12410) Measured in: Flow Cell () Cup

Purge (gal)	Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)	DTW (ft)
<u>0.8</u>	<u>0845</u>	<u>6.70</u>	<u>503.2</u>	<u>9.68</u>	<u>7.01</u>	<u>6.4</u>	<u>107.4</u>	<u>44.85</u>
<u>1.0</u>	<u>0850</u>	<u>6.70</u>	<u>501.5</u>	<u>8.72</u>	<u>6.94</u>	<u>6.8</u>	<u>109.2</u>	<u>44.85</u>
<u>1.3</u>	<u>0855</u>	<u>6.72</u>	<u>503.1</u>	<u>7.33</u>	<u>7.11</u>	<u>6.6</u>	<u>110.8</u>	<u>44.86</u>
<u>1.5</u>	<u>0900</u>	<u>6.73</u>	<u>500.4</u>	<u>7.57</u>	<u>7.22</u>	<u>6.1</u>	<u>112.0</u>	<u>44.85</u>
<u>1.75</u>	<u>0905</u>	<u>6.73</u>	<u>501.0</u>	<u>6.22</u>	<u>7.18</u>	<u>6.3</u>	<u>113.7</u>	<u>44.87</u>

Top of outer casing

Stabilization Criteria: 1) field parameters ± 0.1 pH, ±3% conductivity, ±10 mv ORP, ±10% DO, ±10% Turbidity; 2) 3 well volumes or dry

Sample Collection Method: Bladder Pump Sample clarity/color: clear No color

Sample Odor: (Y) or (N) Explain: _____ Other Observations/Comments: _____

Analysis Requested: Routine Number of Containers: 12

Well Sampling Completion: Time 0950 Date 11-6-19 Samplers K Dye

On-Site Technical Services, Inc.

Groundwater Purging and Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-4-19

Monitoring Well: MW-26 Sample ID: MW26-1119

Arrival Time: 1423

Weather Conditions

Temp. 48° F () Sunny () Partly Cloudy () Cloudy () Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-5mph

Well Condition Checklist

Bump posts: NA Pro. casing/lock: OK Surface pad: OK

Well Visibility (paint): OK Well Label: OK Comment: _____

Depth & Purging Information

TD: 18.50 ft - SWL: 13.00 ft x 0.16 if 2" or 0.65 if 4" = 1 Well Volume: 0.8 gals

Start Purge: 1425 Purging Method: () Bail () Peristaltic () Dedicated Bladder () Non-Dedicated Bladder # _____

Pumping Rate: NA Start Sampling: 0810 Purge Duration: 6min Purge Vol: 1.0 gals.

Field Parameters

Meters: YSI (sn: 17D108223), Hach 2100P (sn: 12410) Measured in: () Flow Cell () Cup

Purge (gal)	Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)	DTW (ft)
<u>1.0</u>	<u>1431</u>	<u>Bailed to Bottom</u>	<u>to Bottom</u>					
<u>11/5</u>	<u>0810</u>	<u>6.48</u>	<u>1138</u>	<u>3.68</u>	<u>NA</u>	<u>13.1</u>	<u>178.3</u>	

Stabilization Criteria: 1) field parameters ± 0.1 pH, ±3% conductivity, ±10 mv ORP, ±10% DO, ±10% Turbidity; 2) 3 well volumes or dry

Sample Collection Method: Bailer Sample clarity/color: Clear No Color

Sample Odor: (Y) or (N) Explain: _____ Other Observations/Comments: _____

Analysis Requested: Routine Number of Containers: 6

Well Sampling Completion: Time 0824 Date 11-5-19 Samplers K Dye

On-Site Technical Services, Inc.

Groundwater Purging and Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-7-19

Monitoring Well: MW-31 Sample ID: MW31-1119

Arrival Time: 0905

Weather Conditions

Temp. 39 ° F () Sunny () Partly Cloudy (X) Cloudy (X) Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-10 mph

Well Condition Checklist

Bump posts: NA Pro. casing/lock: OK Surface pad: OK

Well Visibility (paint): OK Well Label: OK Comment: _____

Depth & Purging Information

TD: 25.35 ft - SWL: 13.81 ft x 0.16 if 2" or 0.65 if 4" = 1 Well Volume: 1.8 gals

Start Purge: 0915 Purging Method: () Bail () Peristaltic () Dedicated Bladder (X) Non-Dedicated Bladder # 3

Pumping Rate: 500ml/147^{sec} Start Sampling: 1010 Purge Duration: 55min Purge Vol: 2.4 gals.

Field Parameters

Meters: YSI (sn: 17D108223), Hach 2100P (sn: 12410) Measured in: (X) Flow Cell () Cup

Purge (gal)	Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)	DTW (ft)
<u>1.3</u>	<u>0945</u>	<u>6.14</u>	<u>405.9</u>	<u>1.24</u>	<u>6.08</u>	<u>6.0</u>	<u>183.0</u>	<u>15.49</u>
<u>1.5</u>	<u>0950</u>	<u>6.15</u>	<u>411.0</u>	<u>1.08</u>	<u>5.68</u>	<u>6.0</u>	<u>183.7</u>	<u>15.56</u>
<u>1.8</u>	<u>0955</u>	<u>6.16</u>	<u>413.6</u>	<u>1.04</u>	<u>5.75</u>	<u>6.0</u>	<u>184.0</u>	<u>15.64</u>
<u>2.0</u>	<u>1000</u>	<u>6.17</u>	<u>415.0</u>	<u>.91</u>	<u>5.60</u>	<u>6.0</u>	<u>183.9</u>	<u>15.78</u>
<u>2.25</u>	<u>1005</u>	<u>6.18</u>	<u>418.8</u>	<u>.89</u>	<u>5.53</u>	<u>5.4</u>	<u>183.9</u>	<u>15.90</u>
<u>2.4</u>	<u>1010</u>	<u>6.20</u>	<u>420.5</u>	<u>.86</u>	<u>5.70</u>	<u>4.9</u>	<u>183.7</u>	<u>16.04</u>

Stabilization Criteria: 1) field parameters ± 0.1 pH, ±3% conductivity, ±10 mv ORP, ±10% DO, ±10% Turbidity; 2) 3 well volumes or dry

Sample Collection Method: Bladder Pump Sample clarity/color: Clear No Color

Sample Odor: (Y) or (N) Explain: _____ Other Observations/Comments: _____

Analysis Requested: Routine Number of Containers: 6

Well Sampling Completion: Time 1028 Date 11-7-19 Samplers K D/E

Dup 1
1040

On-Site Technical Services, Inc.

Groundwater Purging and Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-4-19

Monitoring Well: MW-34 Sample ID: MW34-1119

Arrival Time: 0851

Weather Conditions

Temp. 37 ° F () Sunny () Partly Cloudy () Cloudy () Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-15 mph w/ Gusts

Well Condition Checklist

Bump posts: N/A Pro. casing/lock: OK Surface pad: OK

Well Visibility (paint): OK Well Label: OK Comment: _____

Depth & Purging Information

TD: 235.09 ft - SWL: 150.09 ft x 0.16 if 2" or 0.65 if 4" = 1 Well Volume: 13.5 gals

Start Purge: 0925 Purging Method: () Bail () Peristaltic () Dedicated Bladder () Non-Dedicated Bladder # _____

Pumping Rate: 500ml / 78 sec Start Sampling: 1030 Purge Duration: 1hr 5min Purge Vol: 6.3 gals.

Field Parameters

Meters: YSI (sn: 17D108273), Hach 2100P (sn: 12410) Measured in: () Flow Cell () Cup

Purge (gal)	Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)	DTW (ft)
<u>3.8</u>	<u>1005</u>	<u>7.31</u>	<u>591.9</u>	<u>.83</u>	<u>2.10</u>	<u>6.5</u>	<u>-74.6</u>	<u>160.21</u>
<u>4.3</u>	<u>1010</u>	<u>7.31</u>	<u>591.2</u>	<u>.80</u>	<u>1.85</u>	<u>6.5</u>	<u>-74.9</u>	<u>159.81</u>
<u>4.75</u>	<u>1015</u>	<u>7.31</u>	<u>590.8</u>	<u>.71</u>	<u>1.66</u>	<u>6.6</u>	<u>-74.6</u>	<u>160.82</u>
<u>5.3</u>	<u>1020</u>	<u>7.33</u>	<u>591.1</u>	<u>.85</u>	<u>1.54</u>	<u>6.9</u>	<u>-73.3</u>	<u>161.14</u>
<u>5.8</u>	<u>1025</u>	<u>7.33</u>	<u>590.6</u>	<u>.58</u>	<u>1.34</u>	<u>7.2</u>	<u>-73.7</u>	<u>160.78</u>
<u>6.3</u>	<u>1030</u>	<u>7.34</u>	<u>591.5</u>	<u>.46</u>	<u>1.29</u>	<u>7.3</u>	<u>-70.9</u>	<u>161.43</u>
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

Stabilization Criteria: 1) field parameters ± 0.1 pH, ±3% conductivity, ±10 mv ORP, ±10% DO, ±10% Turbidity; 2) 3 well volumes or dry

Sample Collection Method: BP300 Sample clarity/color: Clear No Color

Sample Odor: (Y) or () Explain: _____ Other Observations/Comments: _____

Analysis Requested: Routine Number of Containers: 6 + Duo 1

Well Sampling Completion: Time 1052 Date 11-4-19 Samplers R Dye

On-Site Technical Services, Inc.

Groundwater Purging and Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-4-19

Monitoring Well: MW-34A Sample ID: MW34A-1119 Arrival Time: 0940

Weather Conditions

Temp. 37° F () Sunny () Partly Cloudy (X) Cloudy () Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-10mph w/ Gusts

Well Condition Checklist

Bump posts: NA Pro. casing/lock: OK Surface pad: OK
 Well Visibility (paint): OK Well Label: OK Comment: _____

Depth & Purging Information

TD: 100.99 ft - SWL: 92.27 ft x 0.16 if 2" or 0.65 if 4" = 1 Well Volume: 1.3 gals
 Start Purge: 0945 Purging Method: (X) Bail () Peristaltic () Dedicated Bladder () Non-Dedicated Bladder # _____
 Pumping Rate: NA Start Sampling: 1100 Purge Duration: 11min Purge Vol: 1.0 gals.

Field Parameters

Meters: YSI (sn: 170108273), Hach 2100P (sn: 12410) Measured in: () Flow Cell (X) Cup

Purge (gal)	Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)	DTW (ft)
<u>1.0</u>	<u>0956</u>	<u>Bailed to Bottom</u>	<u>Bailed to Bottom</u>					
<u>115</u>	<u>1100</u>	<u>7.18</u>	<u>2195</u>	<u>8.16</u>	<u>NA</u>	<u>9.3</u>	<u>-43.7</u>	

Stabilization Criteria: 1) field parameters ± 0.1 pH, ±3% conductivity, ±10 mv ORP, ±10% DO, ±10% Turbidity; 2) 3 well volumes or dry

Sample Collection Method: Bailer Sample clarity/color: Clear No color

Sample Odor: (Y) or (N) Explain: _____ Other Observations/Comments: _____

Analysis Requested: Routine Number of Containers: 6

Well Sampling Completion: Time 1115 Date 11-5-19 Samplers K D E

On-Site Technical Services, Inc.

Groundwater Purging and Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-4-19

Monitoring Well: MW-36A Sample ID: MW36A-1119

Arrival Time: 1411

Weather Conditions

Temp. 48 ° F () Sunny () Partly Cloudy () Cloudy () Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-10 mph

Well Condition Checklist

Bump posts: NA Pro. casing/lock: OK Surface pad: OK

Well Visibility (paint): OK Well Label: OK Comment: _____

Depth & Purging Information

TD: 63.69 ft - SWL: 61.46 ft x 0.16 if 2" or 0.65 if 4" = 1 Well Volume: 0.3 gals

Start Purge: 1415 Purging Method: () Bail () Peristaltic () Dedicated Bladder () Non-Dedicated Bladder # _____

Pumping Rate: NA Start Sampling: 1205 Purge Duration: 3 min Purge Vol: .25 gals.

Field Parameters

Meters: YSI (sn: 17D108273), Hach 2100P (sn: 12410) Measured in: () Flow Cell () Cup

Purge (gal)	Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)	DTW (ft)
<u>.25</u>	<u>1408</u>	<u>Bailed to Bottom</u>	<u>to Bottom</u>					
<u>11/5</u>	<u>1205</u>	<u>6.95</u>	<u>2874</u>	<u>7.58</u>	<u>NA</u>	<u>9.6</u>	<u>113.5</u>	
<u>11/5</u>	<u>1205</u>	<u>Collected Metals - ARK - Phenols</u>						
<u>11/6</u>	<u>1400</u>	<u>Well didn't recover Insufficient amount NO Sample</u>						
<u>11/7</u>	<u>1310</u>	<u>Collected TKN - TDS</u>						
<u>11-11-19</u>	<u>1340</u>	<u>Collected approx 300ml of BAL</u>						

Stabilization Criteria: 1) field parameters ± 0.1 pH, ±3% conductivity, ±10 mv ORP, ±10% DO, ±10% Turbidity; 2) 3 well volumes or dry

Sample Collection Method: Bailer Sample clarity/color: Clear No Color

Sample Odor: (Y) or (N) Explain: _____ Other Observations/Comments: _____

Analysis Requested: Routine Number of Containers: 4

Well Sampling Completion: Time 1349 Date 11-11-19 Samplers K DYE

On-Site Technical Services, Inc.

Groundwater Purging and Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-6-19

Monitoring Well: MW-37 Sample ID: MW37-1119

Arrival Time: 1007

Weather Conditions

Temp. 34 ° F Sunny () Partly Cloudy () Cloudy () Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-5mph

Well Condition Checklist

Bump posts: NA Pro. casing/lock: OK Surface pad: OK

Well Visibility (paint): OK Well Label: OK Comment: _____

Depth & Purging Information

TD: 57.20 ft - SWL: 33.80 ft x 0.16 if 2" or 0.65 if 4" = 1 Well Volume: 3.7 gals

Start Purge: 1020 Purging Method: () Bail () Peristaltic () Dedicated Bladder Non-Dedicated Bladder # _____

Pumping Rate: 500mi / 374 sec Start Sampling: 1140 Purge Duration: 1hr 20min Purge Vol: 1.4 gals.

Field Parameters

Meters: YSI (sn: 17D108223), Hach 2100P (sn: 12410) Measured in: Flow Cell () Cup

Purge (gal)	Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)	DTW (ft)
<u>1.0</u>	<u>1120</u>	<u>7.41</u>	<u>481.7</u>	<u>3.33</u>	<u>1.83</u>	<u>11.5</u>	<u>127.1</u>	<u>33.80</u>
<u>1.1</u>	<u>1125</u>	<u>7.41</u>	<u>480.8</u>	<u>.60</u>	<u>1.71</u>	<u>11.4</u>	<u>127.0</u>	<u>33.80</u>
<u>1.25</u>	<u>1130</u>	<u>7.40</u>	<u>482.6</u>	<u>.71</u>	<u>1.69</u>	<u>11.4</u>	<u>126.8</u>	<u>33.80</u>
<u>1.3</u>	<u>1135</u>	<u>7.40</u>	<u>480.3</u>	<u>.26</u>	<u>1.62</u>	<u>11.4</u>	<u>126.8</u>	<u>33.80</u>
<u>1.4</u>	<u>1140</u>	<u>7.40</u>	<u>479.3</u>	<u>1.11</u>	<u>1.58</u>	<u>11.5</u>	<u>126.7</u>	<u>33.80</u>

Stabilization Criteria: 1) field parameters ± 0.1 pH, ±3% conductivity, ±10 mv ORP, ±10% DO, ±10% Turbidity; 2) 3 well volumes or dry

Sample Collection Method: Pencil Pump Sample clarity/color: Clear No color

Sample Odor: (Y) or (N) Explain: _____ Other Observations/Comments: _____

Analysis Requested: Routine Number of Containers: 6

Well Sampling Completion: Time 1217 Date 11-6-19 Samplers K Dye

On-Site Technical Services, Inc.

Groundwater Purging and Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-4-19

Monitoring Well: MW-37A **Sample ID:** MW37A-1119

Arrival Time: 1355

Weather Conditions

Temp. 48 °F () Sunny () Partly Cloudy () Cloudy () Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-10 mph

Well Condition Checklist

Bump posts: NA Pro. casing/lock: OK Surface pad: OK

Well Visibility (paint): OK Well Label: OK Comment: _____

Depth & Purging Information

TD: 37.84 ft - SWL: 31.92 ft x 0.16 if 2" or 0.65 if 4" = 1 Well Volume: 0.9 gals

Start Purge: 1400 Purging Method: () Bail () Peristaltic () Dedicated Bladder () Non-Dedicated Bladder # _____

Pumping Rate: NA Start Sampling: 1135 Purge Duration: 4 min Purge Vol: 0.75 gals.

Field Parameters

Meters: YSI (sn: 17D108273), Hach 2100P (sn: 12410) Measured in: () Flow Cell () Cup

Purge (gal)	Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)	DTW (ft)
<u>0.75</u>	<u>1404</u>							
<u>1115</u>	<u>1135</u>	<u>7.12</u>	<u>1491</u>	<u>5.99</u>	<u>NA</u>	<u>11.9</u>	<u>80.7</u>	

Stabilization Criteria: 1) field parameters ± 0.1 pH, ±3% conductivity, ±10 mv ORP, ±10% DO, ±10% Turbidity; 2) 3 well volumes or dry

Sample Collection Method: Bailer Sample clarity/color: Clear No Color

Sample Odor: (Y) or (N) Explain: _____ Other Observations/Comments: _____

Analysis Requested: Routine Number of Containers: 6

Well Sampling Completion: Time 1149 Date 11-5-19 Samplers KD/E

On-Site Technical Services, Inc.

Groundwater Purging and Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-7-19

Monitoring Well: MW-40 Sample ID: MW40-1119

Arrival Time: 1038

Weather Conditions

Temp: 38 ° F () Sunny () Partly Cloudy (X) Cloudy (X) Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-10mph

Well Condition Checklist

Bump posts: NA Pro. casing/lock: OK Surface pad: OK

Well Visibility (paint): OK Well Label: OK Comment: _____

Depth & Purging Information

TD: 52.35 ft - SWL: 48.35 ft x 0.16 if 2" or 0.65 if 4" = 1 Well Volume: 0.6 gals

Start Purge: 1100 Purging Method: () Bail () Peristaltic () Dedicated Bladder (X) Non-Dedicated Bladder # 3

Pumping Rate: 500ml/217^{sec} Start Sampling: 1210 Purge Duration: 1hr 10min Purge Vol: 1.25 gals.
1.3

Field Parameters

Meters: YSI (sn: 17D108273), Hach 2100P (sn: 12410) Measured in: (X) Flow Cell () Cup

Purge (gal)	Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)	DTW (ft)
<u>0.8</u>	<u>1145</u>	<u>7.31</u>	<u>438.6</u>	<u>4.76</u>	<u>3.18</u>	<u>7.8</u>	<u>158.5</u>	<u>48.61</u>
<u>0.9</u>	<u>1150</u>	<u>7.32</u>	<u>435.6</u>	<u>4.70</u>	<u>3.02</u>	<u>8.0</u>	<u>157.8</u>	<u>48.71</u>
<u>1.0</u>	<u>1155</u>	<u>7.34</u>	<u>438.4</u>	<u>4.76</u>	<u>2.89</u>	<u>8.2</u>	<u>156.5</u>	<u>48.79</u>
<u>1.1</u>	<u>1200</u>	<u>7.36</u>	<u>439.0</u>	<u>4.32</u>	<u>3.05</u>	<u>8.1</u>	<u>155.1</u>	<u>48.81</u>
<u>1.25</u>	<u>1205</u>	<u>7.37</u>	<u>439.3</u>	<u>4.68</u>	<u>3.16</u>	<u>8.0</u>	<u>154.4</u>	<u>48.78</u>
<u>1.3</u>	<u>1210</u>	<u>7.38</u>	<u>440.9</u>	<u>4.49</u>	<u>3.09</u>	<u>7.4</u>	<u>153.7</u>	<u>48.80</u>

Stabilization Criteria: 1) field parameters ± 0.1 pH, ±3% conductivity, ±10 mv ORP, ±10% DO, ±10% Turbidity; 2) 3 well volumes or dry

Sample Collection Method: Bladder Pump Sample clarity/color: Clear No Color

Sample Odor: (Y) or (N) Explain: _____ Other Observations/Comments: Air tube was leaking at split had to cut back to get good seal at controller

Analysis Requested: Routine Number of Containers: 6

Well Sampling Completion: Time 1221 Date 11-7-19 Samplers K Dye

HAD to Purge Slow. Slow recovery

On-Site Technical Services, Inc.

Groundwater Purging and Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-5-19

Monitoring Well: MW-40A Sample ID: MW40A-1119

Arrival Time: 0901

Weather Conditions

Temp. 44 ° F () Sunny () Partly Cloudy () Cloudy (X) Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-10 mph

Well Condition Checklist

Bump posts: NA Pro. casing/lock: OK Surface pad: OK

Well Visibility (paint): OK Well Label: OK Comment: _____

Depth & Purging Information

TD: 34.90 ft - SWL: 32.78 ft x 0.16 if 2" or 0.65 if 4" = 1 Well Volume: 0.3 gals

Start Purge: _____ Purging Method: (X) ^{Direct} Bail () Peristaltic () Dedicated Bladder () Non-Dedicated Bladder # _____

Pumping Rate: NA Start Sampling: 0910 Purge Duration: NA Purge Vol: _____ gals.

Field Parameters

Meters: YSI (sn: 17D108273), Hach 2100P (sn: 12410) Measured in: () Flow Cell (X) Cup

Purge (gal)	Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)	DTW (ft)
<u>11/5</u>	<u>0910</u>	<u>6.69</u>	<u>2115</u>	<u>1.45</u>	<u>NA</u>	<u>12.8</u>	<u>183.1</u>	
<u>11/5</u>	<u>0910</u>	<u>collected All but BOD - AIR</u>						
<u>11/6</u>	<u>1410</u>	<u>collected AIR</u>						
<u>11/7</u>	<u>1250</u>	<u>No recovery insufficient Amount</u>						
<u>11/11</u>	<u>1230</u>	<u>collected approx 400 ml BOD</u>						

Stabilization Criteria: 1) field parameters ± 0.1 pH, ±3% conductivity, ±10 mv ORP, ±10% DO, ±10% Turbidity; 2) 3 well volumes or dry

Sample Collection Method: Direct Bail Sample clarity/color: Clear No Color

Sample Odor: (Y) or (N) Explain: _____ Other Observations/Comments: _____

Analysis Requested: Routine Number of Containers: 6

Well Sampling Completion: Time 1231 Date 11-11-19 Samplers RDF

11/11-1 11/5-4 11/6-1

On-Site Technical Services, Inc.

Groundwater Purging and Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-5-19

Monitoring Well: MW-41A Sample ID: MW41A-1119

Arrival Time: 0926

Weather Conditions

Temp. 44 ° F () Sunny () Partly Cloudy () Cloudy () Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-10 mph

Well Condition Checklist

Bump posts: NA Pro. casing/lock: OK Surface pad: OK

Well Visibility (paint): OK Well Label: OK Comment: _____

Depth & Purging Information

TD: 57.78 ft - SWL: 54.94 ft x 0.16 if 2" or 0.65 if 4" = 1 Well Volume: _____ gals

Start Purge: NA Purging Method: () Bail () Peristaltic () Dedicated Bladder () Non-Dedicated Bladder # _____

Pumping Rate: NA Start Sampling: 0935 Purge Duration: NA Purge Vol: NA gals.

Field Parameters

Meters: YSI (sn: 17D108273), Hach 2100P (sn: 12410) Measured in: () Flow Cell () Cup

Purge (gal)	Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)	DTW (ft)
<u>1115</u>	<u>0935</u>	<u>6.86</u>	<u>3334</u>	<u>4.52</u>	<u>NA</u>	<u>13.7</u>	<u>173.2</u>	
<u>1115</u>	<u>0935</u>	<u>Collected All but 800 ml</u>						
1116	1125	Collected 800 ml of 800 ml						

Stabilization Criteria: 1) field parameters ± 0.1 pH, ±3% conductivity, ±10 mv ORP, ±10% DO, ±10% Turbidity; 2) 3 well volumes or dry

Sample Collection Method: Direct Bail Sample clarity/color: Clear No Color

Sample Odor: (Y) or (N) Explain: _____ Other Observations/Comments: _____

Analysis Requested: Routine Number of Containers: 6

Well Sampling Completion: Time 0944 Date ~~11-5-19~~ 11-5-19 Samplers K DYE

On-Site Technical Services, Inc.

Groundwater Purging and Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-5-19

Monitoring Well: MW-42A Sample ID: MW42A-1119

Arrival Time: 0945

Weather Conditions

Temp. 43 ° F () Sunny () Partly Cloudy () Cloudy () Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-5mph

Well Condition Checklist

Bump posts: NA Pro. casing/lock: OK Surface pad: OK

Well Visibility (paint): OK Well Label: OK Comment: _____

Depth & Purging Information

TD: 66.98 ft - SWL: 65.09 ft x 0.16 if 2" or 0.65 if 4" = 1 Well Volume: 0.3 gals

Start Purge: NA Purging Method: () Bail () Peristaltic () Dedicated Bladder () Non-Dedicated Bladder # _____

Pumping Rate: NA Start Sampling: 1005 Purge Duration: NA Purge Vol: NA gals.

Field Parameters

Meters: YSI (sn: 17D108273), Hach 2100P (sn: 12410) Measured in: () Flow Cell () Cup

Purge (gal)	Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)	DTW (ft)
<u>11/5</u>	<u>1005</u>	<u>7.00</u>	<u>3013</u>	<u>86.6</u>	<u>NA</u>	<u>10.8</u>	<u>161.1</u>	
<u>11/5</u>	<u>1005</u>	<u>Collect all but BAD-TDS</u>						
<u>11/6</u>	<u>1425</u>	<u>Collected 800 ml BAD</u>						
<u>11/7</u>	<u>1235</u>	<u>Collect 3/3 TDS Rottle</u>						

Stabilization Criteria: 1) field parameters ± 0.1 pH, ±3% conductivity, ±10 mv ORP, ±10% DO, ±10% Turbidity; 2) 3 well volumes or dry

Sample Collection Method: Direct Bail Sample clarity/color: Slightly Cloudy with light Amber tint

Sample Odor: (Y) or () Explain: _____ Other Observations/Comments: _____

11/7-① 11/5-④ 11/6-①

Analysis Requested: Routine Number of Containers: 6

Well Sampling Completion: Time 1243 Date 11-7-19 Samplers K Dye

On-Site Technical Services, Inc.

Groundwater Purging and Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-4-19

Monitoring Well: MW-45A Sample ID: MW45A-1119

Arrival Time: 1502

Weather Conditions

Temp. 48 ° F () Sunny () Partly Cloudy () Cloudy () Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-5mph

Well Condition Checklist

Bump posts: NA Pro. casing/lock: OK Surface pad: OK

Well Visibility (paint): OK Well Label: OK Comment: _____

Depth & Purging Information

TD: 111.87 ft - SWL: 86.95 ft x 0.16 if 2" or 0.65 if 4" = 1 Well Volume: 3.9 gals

Start Purge: 1505 Purging Method: () Bail () Peristaltic () Dedicated Bladder () Non-Dedicated Bladder # _____

Pumping Rate: NA Start Sampling: 1030 Purge Duration: 15min Purge Vol: 3.3 gals.

Field Parameters

Meters: YSI (sn: 17D108273), Hach 2100P (sn: 12410) Measured in: () Flow Cell () Cup

Purge (gal)	Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)	DTW (ft)
<u>3.3</u>	<u>1500</u>	<u>Bailed to bottom</u>	<u>to bottom</u>					
<u>11/5</u>	<u>1030</u>	<u>7.17</u>	<u>1137</u>	<u>17.8</u>	<u>NA</u>	<u>8.9</u>	<u>19.4</u>	

Stabilization Criteria: 1) field parameters ± 0.1 pH, ± 3% conductivity, ± 10 mv ORP, ± 10% DO, ± 10% Turbidity; 2) 3 well volumes or dry

Sample Collection Method: Raker Sample clarity/color: Clear w/ light yellow tint

Sample Odor: (Y) or () N Explain: _____ Other Observations/Comments: _____

Analysis Requested: Routine Number of Containers: 6

Well Sampling Completion: Time 1046 Date 11-5-19 Samplers K Dye

On-Site Technical Services, Inc.

Groundwater Purging and Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-6-19

Monitoring Well: MW-47A Sample ID: MW47A-1119

Arrival Time: 1007 1222

Weather Conditions

Temp: 41.0 F Sunny () Partly Cloudy () Cloudy () Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-5 mph

Well Condition Checklist

Bump posts: NA Pro. casing/lock: OK Surface pad: OK

Well Visibility (paint): OK Well Label: OK Comment: _____

Depth & Purging Information

TD: 42.45 ft - SWL: 27.00 ft x 0.16 if 2" or 0.65 if 4" = 1 Well Volume: 2.4 gals

Start Purge: 1230 Purging Method: () Bail () Peristaltic () Dedicated Bladder Non-Dedicated Bladder # 3

Pumping Rate: 500m/216^{sec} Start Sampling: 1325 Purge Duration: 55min Purge Vol: 2.6 gals.

Field Parameters

Meters: YSI (sn: 17D10823), Hach 2100P (sn: 12410) Measured in: Flow Cell () Cup

Purge (gal)	Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)	DTW (ft)
<u>1.4</u>	<u>1300</u>	<u>7.18</u>	<u>1435</u>	<u>2.31</u>	<u>.54</u>	<u>9.5</u>	<u>-104.4</u>	<u>31.33</u>
<u>1.75</u>	<u>1305</u>	<u>7.17</u>	<u>1432</u>	<u>1.11</u>	<u>.52</u>	<u>9.9</u>	<u>-104.7</u>	<u>32.51</u>
<u>2.0</u>	<u>1310</u>	<u>7.16</u>	<u>1437</u>	<u>1.86</u>	<u>.53</u>	<u>10.0</u>	<u>-104.2</u>	
<u>2.25</u>	<u>1315</u>	<u>7.17</u>	<u>1440</u>	<u>2.00</u>	<u>.53</u>	<u>9.3</u>	<u>-103.9</u>	<u>33.69</u>
<u>2.4</u>	<u>1320</u>	<u>7.17</u>	<u>1442</u>	<u>1.81</u>	<u>.51</u>	<u>9.1</u>	<u>-101.7</u>	<u>34.08</u>
<u>2.6</u>	<u>1325</u>	<u>7.17</u>	<u>1445</u>	<u>1.88</u>	<u>.56</u>	<u>8.9</u>	<u>-101.1</u>	<u>34.53</u>

Stabilization Criteria: 1) field parameters ± 0.1 pH, ±3% conductivity, ±10 mv ORP, ±10% DO, ±10% Turbidity; 2) 3 well volumes or dry

Sample Collection Method: Bladder Pump Sample clarity/color: Clear w/ Fine Black Particulates

Sample Odor: (Y) or (N) (N) Explain: _____ Other Observations/Comments: _____

Analysis Requested: Routine Number of Containers: 6

Well Sampling Completion: Time 1349 Date 11-6-19 Samplers K Dye

On-Site Technical Services, Inc.

Groundwater Purging and Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-4-19

Monitoring Well: MW-48 Sample ID: MW48-1119 Arrival Time: 1100

Weather Conditions

Temp. 42 ° F () Sunny () Partly Cloudy (X) Cloudy () Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-10 mph w/ Gusts

Well Condition Checklist

Bump posts: NA Pro. casing/lock: OK Surface pad: OK
 Well Visibility (paint): OK Well Label: OK Comment: _____

Depth & Purging Information

TD: 160.50 ft - SWL: 155.69 ft x 0.16 if 2" or 0.65 if 4" = 1 Well Volume: 0.7 gals
 Start Purge: 1115 Purging Method: () Bail () Peristaltic () Dedicated Bladder () Non-Dedicated Bladder # _____
 Pumping Rate: 500ml / 212 sec Start Sampling: 1200 Purge Duration: 45 min Purge Vol: 0.6 gals.

Field Parameters

Meters: YSI (sn: 17010873) Hach 2100P (sn: 12410) Measured in: () Flow Cell () Cup

Purge (gal)	Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)	DTW (ft)
0.3	1140	7.24	925	1.18	3.34	9.2	83.7	157.12
0.4	1145	7.20	935	1.30	3.15	9.1	67.9	157.50
0.5	1150	7.16	988	1.40	3.08	8.9	66.2	157.84
0.5	1155	7.12	99.1	1.46	3.02	8.7	66.7	158.13
0.6	1200	7.11	93.4	6.58	2.93	8.7	67.6	158.45

Stabilization Criteria: 1) field parameters ± 0.1 pH, ±3% conductivity, ±10 mv ORP, ±10% DO, ±10% Turbidity; 2) 3 well volumes or dry

Sample Collection Method: BP300 Sample clarity/color: Clear No color
 Sample Odor: (Y) or (N) Explain: _____ Other Observations/Comments: Fill=80
Press=85 Diss=18

Analysis Requested: Routine Number of Containers: 6

Well Sampling Completion: Time 1228 Date 11-4-19 Samplers K Dye

On-Site Technical Services, Inc.

Groundwater Purging and Sampling

Project: Hyland Facility - Angelica, New York Date: 11-4-19

Monitoring Well: MW-48A Sample ID: No Sample Arrival Time: 1136

Weather Conditions

Temp. 44 ° F () Sunny () Partly Cloudy () Cloudy () Light Rain () Hvy. Rain () Snow
 Wind Conditions: 0-10 mph

Well Condition Checklist

Bump posts: NA Pro. casing/lock: OK Surface pad: OK
 Well Visibility (paint): OK Well Label: OK Comment: DRY

Depth & Purging Information

TD: 102.47 ft – SWL: DRY ft x 0.16 if 2" or 0.65 if 4" = 1 Well Volume: _____ gals
 Start Purge: _____ Purging Method: () Bail () Peristaltic () Dedicated Bladder () Non-Dedicated Bladder # _____
 Pumping Rate: _____ Start Sampling: _____ Purge Duration: _____ Purge Vol: _____ gals.

Field Parameters

Meters: YSI (sn: _____), Hach 2100P (sn: _____) Measured in: () Flow Cell () Cup

Purge (gal)	Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)	DTW (ft)

Stabilization Criteria: 1) field parameters ± 0.1 pH, ±3% conductivity, ±10 mv ORP, ±10% DO, ±10% Turbidity; 2) 3 well volumes or dry

Sample Collection Method: Bailer Sample clarity/color: _____

Sample Odor: (Y) or (N) Explain: _____ Other Observations/Comments: DRY

Analysis Requested: Routine Number of Containers: 0

Well Sampling Completion: Time 1140 Date 11-4-19 Samplers K Dye

On-Site Technical Services, Inc.

Surface Water and Sediment Water Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-7-19

Sampling Location: DB-1 Sample ID: DB1-1119 Arrival Time: 1318

Sediment Sample ID: No SED

Weather Conditions

Temp. 35 °F () Sunny () Partly Cloudy (X) Cloudy (X) Light Rain () Hvy. Rain (X) Snow ^{light} (X)

Wind Conditions: 0-5 mph

Flow and Depth Information (as appropriate)

Depth: 6" Estimated Flow: 16³m Comments: _____

Field Parameters (as appropriate)

Meter: YSI (sn: 17D108273), Hach 2100P (sn: 12410) Measured in: (X) Submerged Probe () Cup
 Note: Turbidity measured from a vial grab sample

Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)
<u>1330</u>	<u>7.68</u>	<u>203.5</u>	<u>172.0</u>	<u>8.56</u>	<u>6.0</u>	<u>156.1</u>

Sample Information

Sample Type: (X) Grab () Composite Sample Location: (X) Discharge Pipe () Pond () Ditch

Water Sample:

Location Description/Condition: Discharge Pipe South of Pond

Sample Collection Equipment/Method: dipper Sample Time: 1330

Sample Description (clarity/color): lightly cloudy light Sample Odor: (Y) or (N) Explain: _____

Other Observations/Comments: Amber tint

Sediment Sample:

Sample Collection Equipment/Method: _____ Sample Time: _____

Sample Description (clarity/color): _____

Sample Odor: (Y) or (N) Explain: _____ Other Observations: No SED

Analysis Requested: Routine Number of Containers: 6

Sampling Completion: Time 1352 Date 11-7-19 Samplers K Dye

On-Site Technical Services, Inc.
Surface Water and Sediment Water Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-11-19

Sampling Location: DB-3 Sample ID: DB3-1119 Arrival Time: 0834

Sediment Sample ID: No SED

Weather Conditions

Temp. 34 °F () Sunny () Partly Cloudy (X) Cloudy () Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-5 mph

Flow and Depth Information (as appropriate)

Depth: 3-4" Estimated Flow: 1 GPM Comments: _____

Field Parameters (as appropriate)

Meter: YSI (sn: 17D108273), Hach 2100P (sn: 12410) Measured in: (X) Submerged Probe () Cup
Note: Turbidity measured from a vial grab sample

Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)
<u>0925</u>	<u>7.51</u>	<u>290.3</u>	<u>83.4</u>	<u>13.27</u>	<u>3.3</u>	<u>98.7</u>

Sample Information

Sample Type: (X) Grab () Composite Sample Location: () Discharge Pipe () Pond (X) Ditch

Water Sample:

Location Description/Condition: From water channel below Rat Basin

Sample Collection Equipment/Method: Grab-dipper Sample Time: 0925

Sample Description (clarity/color): Slightly Cloudy light yellow Sample Odor: (Y) or (N) Explain: _____

Other Observations/Comments: Rat

DB

Sediment Sample:

Sample Collection Equipment/Method: No SED Sample Time: _____

Sample Description (clarity/color): _____

Sample Odor: (Y) or (N) Explain: _____ Other Observations: _____

Analysis Requested: Routine Number of Containers: 6

Sampling Completion: Time 0939 Date 11-11-19 Samplers K D, F

On-Site Technical Services, Inc.
Surface Water and Sediment Water Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-11-19

Sampling Location: East Perimeter Ditch Sample ID: No Sample Arrival Time: 1314

Sediment Sample ID: NONE

Weather Conditions

Temp. 34 ° F () Sunny () Partly Cloudy (X) Cloudy () Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-5 mph

Flow and Depth Information (as appropriate)

Depth: _____ Estimated Flow: → Comments: No Visible Flow Some Standing water

Field Parameters (as appropriate)

Meter: YSI (sn: _____), Hach 2100P (sn: _____) Measured in: () Submerged Probe () Cup
Note: Turbidity measured from a vial grab sample

Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)
_____	_____	_____	_____	_____	_____	_____

Sample Information

Sample Type: (X) Grab () Composite Sample Location: () Discharge Pipe () Pond (X) Ditch

Water Sample:

Location Description/Condition: Ditch just south of shed

Sample Collection Equipment/Method: NONE Sample Time: _____

Sample Description (clarity/color): _____ Sample Odor: (Y) or (N) Explain: _____

Other Observations/Comments: _____

Sediment Sample:

Sample Collection Equipment/Method: _____ Sample Time: _____

Sample Description (clarity/color): _____

Sample Odor: (Y) or (N) Explain: _____ Other Observations: _____

Analysis Requested: Routine Number of Containers: 0

Sampling Completion: Time 1320 Date 11-11-19 Samplers R D E

On-Site Technical Services, Inc.
Surface Water and Sediment Water Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-11-19

Sampling Location: West Ditch Sample ID: No Sample Arrival Time: 1203

Sediment Sample ID: None

Weather Conditions

Temp. 36° F () Sunny () Partly Cloudy (X) Cloudy () Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-5 mph

Flow and Depth Information (as appropriate)

Depth: _____ Estimated Flow: No Flow Comments: _____

Field Parameters (as appropriate)

Meter: YSI (sn: _____), Hach 2100P (sn: _____) Measured in: () Submerged Probe () Cup
Note: Turbidity measured from a vial grab sample

Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

Sample Information

Sample Type: () Grab () Composite Sample Location: () Discharge Pipe () Pond (X) Ditch

Water Sample:

Location Description/Condition: Ditch

Sample Collection Equipment/Method: NONE Sample Time: No Sample

Sample Description (clarity/color): _____ Sample Odor: (Y) or (N) Explain: _____

Other Observations/Comments: No-Flow

Sediment Sample:

Sample Collection Equipment/Method: NONE Sample Time: _____

Sample Description (clarity/color): _____

Sample Odor: (Y) or (N) Explain: _____ Other Observations: _____

Analysis Requested: Routine Number of Containers: 0

Sampling Completion: Time 1206 Date 11-11-19 Samplers RDE

On-Site Technical Services, Inc.

Groundwater Suppression, Leachate, Residential Water Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-5-19

Sampling Location: GSS-1 Sample ID: GSS1-1119 Arrival Time: 1350

Weather Conditions

Temp. 45° F () Sunny () Partly Cloudy Cloudy Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-5 mph

Location Type

Groundwater Suppression () Leachate () Secondary Leachate () Residential Water () Other

Description: _____

Flow and Depth Information (as appropriate)

Depth: NA Estimated Flow: → Comments: MANUALLY OPERATED SWITCH

Field Parameters (as appropriate)

Meter: YSI (sn: 17D108273), Hach 2100P (sn: 12410) Measured in: () Submerged Probe Cup
 Note: Turbidity measured from a vial grab sample

Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)
<u>1350</u> <u>1415</u>	<u>7.03</u>	<u>378.5</u>	<u>21.0</u>	<u>NA</u>	<u>22.4</u>	<u>111.3</u>

Sample Information

Sample Type: Grab () Composite Sample Location: Discharge Pipe () Pond Ditch

Location Description/Condition: East of riser house in ditch

Sample Collection Equipment/Method: Grab Sample Time: 1415

Sample Description (clarity/color): Clear No Color Sample Odor: (Y) or (N) Explain: _____

Other Observations/Comments: _____

Analysis Requested: Routine Number of Containers: 6

Sampling Completion: Time 1436 Date 11-5-19 Samplers K DYE

On-Site Technical Services, Inc.
Groundwater Suppression, Leachate, Residential Water Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-5-19

Sampling Location: GSS-2 E/F Sample ID: GSS2EF-1119 Arrival Time: 1233

Weather Conditions

Temp. 45 ° F () Sunny () Partly Cloudy Cloudy Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-5 mph

Location Type

Groundwater Suppression () Leachate () Secondary Leachate () Residential Water () Other

Description: _____

Flow and Depth Information (as appropriate)

Depth: NA Estimated Flow: → Comments: manually operated switch

Field Parameters (as appropriate)

Meter: YSI (sn: 17D108273), Hach 2100P (sn: 12410) Measured in: () Submerged Probe Cup
Note: Turbidity measured from a vial grab sample

Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)
<u>1245</u>	<u>7.16</u>	<u>608</u>	<u>.69</u>	<u>NA</u>	<u>24.5</u>	<u>55.1</u>

Sample Information

Sample Type: Grab () Composite Sample Location: () Discharge Pipe () Pond Hose Bibb Ditch

Location Description/Condition: Riser House

Sample Collection Equipment/Method: Grab Sample Time: 1245

Sample Description (clarity/color): Clear No color Sample Odor: (Y) or (N) Explain: _____

Other Observations/Comments: _____

Analysis Requested: Baseline Number of Containers: 12

Sampling Completion: Time 1303 Date 11-5-19 Samplers KDE

On-Site Technical Services, Inc.
Groundwater Suppression, Leachate, Residential Water Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-5-19

Sampling Location: GSS-2 G/H Sample ID: GSS2GH-1119 Arrival Time: 1310

Weather Conditions

Temp. 45 ° F () Sunny () Partly Cloudy Cloudy Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-5 mph

Location Type

Groundwater Suppression () Leachate () Secondary Leachate () Residential Water () Other

Description: _____

Flow and Depth Information (as appropriate)

Depth: NA Estimated Flow: → Comments: manually operated switch

Field Parameters (as appropriate)

Meter: YSI (sn: 17D108273), Hach 2100P (sn: 12410) Measured in: () Submerged Probe Cup
Note: Turbidity measured from a vial grab sample

Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)
<u>1325</u>	<u>6.84</u>	<u>1297</u>	<u>7.68</u>	<u>NA</u>	<u>20.4</u>	<u>-18.5</u>

Sample Information

Sample Type: Grab () Composite Sample Location: Discharge Pipe () Pond Ditch

Location Description/Condition: Pipe in Ditch West of River House

Sample Collection Equipment/Method: Grab Sample Time: 1325

Sample Description (clarity/color): Clear No Color Sample Odor: (Y) or (N) Explain: _____

Other Observations/Comments: _____

Analysis Requested: Routine Number of Containers: 6

Sampling Completion: Time 1344 Date 11-5-19 Samplers KDyE

On-Site Technical Services, Inc.
Groundwater Suppression, Leachate, Residential Water Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-4-19

Sampling Location: GSS-3 Sample ID: GSS3-1119 Arrival Time: 1310

Weather Conditions

Temp. 47° F () Sunny (X) Partly Cloudy () Cloudy () Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-15 mph

Location Type

(X) Groundwater Suppression () Leachate () Secondary Leachate () Residential Water () Other

Description: _____

Flow and Depth Information (as appropriate)

Depth: 4.7 Estimated Flow: 16 GPM Comments: _____

Field Parameters (as appropriate)

Meter: YSI (sn: 17D108273), Hach 2100P (sn: 12410) Measured in: () Submerged Probe (X) Cup
Note: Turbidity measured from a vial grab sample

Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)
<u>1320</u>	<u>6.91</u>	<u>670</u>	<u>.47</u>	<u>NA</u>	<u>16.2</u>	<u>28.6</u>

Sample Information

Sample Type: (X) Grab () Composite Sample Location: (X) Discharge Pipe () Pond () Ditch

Location Description/Condition: _____

Sample Collection Equipment/Method: Direct Grab Sample Time: 1320

Sample Description (clarity/color): Clear No Color Sample Odor: (Y) or (N) Explain: _____

Other Observations/Comments: _____

Analysis Requested: Baseline Number of Containers: 12

Sampling Completion: Time 1349 Date 11-4-19 Samplers R Dye

On-Site Technical Services, Inc.
Groundwater Suppression, Leachate, Residential Water Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-4-19-11-7-19

Sampling Location: GSS-4 Sample ID: No Sample Arrival Time: 1350

Weather Conditions

Temp. 47 °F () Sunny (X) Partly Cloudy () Cloudy () Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-15mph

Location Type

(X) Groundwater Suppression () Leachate () Secondary Leachate () Residential Water () Other

Description: _____

Flow and Depth Information (as appropriate)

Depth: NA Estimated Flow: → Comments: Insufficient Flow - Slight Drizzle

Field Parameters (as appropriate)

Meter: YSI (sn: _____), Hach 2100P (sn: _____) Measured in: () Submerged Probe () Cup

Note: Turbidity measured from a vial grab sample

Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

Sample Information

Sample Type: () Grab () Composite Sample Location: () Discharge Pipe () Pond () Ditch

Location Description/Condition: _____

Sample Collection Equipment/Method: _____ Sample Time: _____

Sample Description (clarity/color): _____ Sample Odor: (Y) or (N) Explain: _____

Other Observations/Comments: _____

Analysis Requested: Routine Number of Containers: 0

Sampling Completion: Time 1355 Date 11-7-19 Samplers K. Dye

On-Site Technical Services, Inc.
Groundwater Suppression, Leachate, Residential Water Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-4-19

Sampling Location: GSS-5 Sample ID: GSS5-1119 Arrival Time: 1249

Weather Conditions

Temp. 47° F () Sunny () Partly Cloudy () Cloudy () Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-10mph

Location Type

Groundwater Suppression () Leachate () Secondary Leachate () Residential Water () Other

Description: _____

Flow and Depth Information (as appropriate)

Depth: NA Estimated Flow: 2 GPM Comments: _____

Field Parameters (as appropriate)

Meter: YSI (sn: 17D108723), Hach 2100P (sn: 12410) Measured in: () Submerged Probe Cup
Note: Turbidity measured from a vial grab sample

Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)
<u>1225</u>	<u>7.43</u>	<u>469.5</u>	<u>3.68</u>	<u>NA</u>	<u>16.0</u>	<u>107.6</u>

Sample Information

Sample Type: Grab () Composite Sample Location: Discharge Pipe () Pond () Ditch

Location Description/Condition: Over East side Beyond MW 45

Sample Collection Equipment/Method: Dipper Sample Time: 1225

Sample Description (clarity/color): Clear No Color Sample Odor: (Y) or (N) Explain: _____

Other Observations/Comments: _____

Analysis Requested: Routine Number of Containers: 6

Sampling Completion: Time 1306 Date 11-4-19 Samplers K D E

On-Site Technical Services, Inc.
Groundwater Suppression, Leachate, Residential Water Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-12-19

Sampling Location: Shay Springs Sample ID: Shay Springs-1119 Arrival Time: 0956
Shay Pre Filter

Weather Conditions

Temp. 19 ° F () Sunny () Partly Cloudy () Cloudy () Light Rain () Hvy. Rain () Snow ^{light}

Wind Conditions: 0-5mph

Location Type

() Groundwater Suppression () Leachate () Secondary Leachate Residential Water () Other

Description: _____

Flow and Depth Information (as appropriate)

Depth: NA Estimated Flow: 16GPM Comments: _____

Field Parameters (as appropriate)

Meter: YSI (sn: 170108273), Hach 2100P (sn: 12410) Measured in: () Submerged Probe Cup
Note: Turbidity measured from a vial grab sample

Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)
<u>1010</u>	<u>7.15</u>	<u>494.5</u>	<u>10.23</u>	<u>NA</u>	<u>10.9</u>	<u>161.4</u>

Sample Information

Sample Type: () Grab () Composite Sample Location: () Discharge Pipe () Pond () Ditch

Location Description/Condition: Discharge pipe at spring down Behind House

Sample Collection Equipment/Method: Grab Sample Time: 1010

Sample Description (clarity/color): Clear No Color Sample Odor: (Y) or (N) Explain: _____

Other Observations/Comments: _____

Analysis Requested: Routine Number of Containers: 6

Sampling Completion: Time 1017 Date 11-12-19 Samplers K Qic

On-Site Technical Services, Inc.
Groundwater Suppression, Leachate, Residential Water Sampling

Project: Hyland Facility - Angelica, New York Date: 11-12-19

Sampling Location: Shay House^{KID} Sample ID: Shay House-1119 Arrival Time: 1024
Shay Post Filter

Weather Conditions

Temp. 19 ° F () Sunny () Partly Cloudy (X) Cloudy () Light Rain () Hvy. Rain (X) ^{light} Snow
 Wind Conditions: 0-5 mph

Location Type

() Groundwater Suppression () Leachate () Secondary Leachate (X) Residential Water () Other
 Description: _____

Flow and Depth Information (as appropriate)

Depth: NA Estimated Flow: NA Comments: _____

Field Parameters (as appropriate)

Meter: YSI (sn: 17D108273), Hach 2100P (sn: 12410) Measured in: () Submerged Probe (X) Cup
 Note: Turbidity measured from a vial grab sample

Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)
<u>1030</u>	<u>6.58</u>	<u>513.8</u>	<u>0.22</u>	<u>NA</u>	<u>19.3</u>	<u>208.5</u>

Sample Information

Sample Type: () Grab () Composite Sample Location: () Discharge Pipe () Pond () Ditch

Location Description/Condition: Bathroom Sink in Basement Post Water Treatment

Sample Collection Equipment/Method: _____ Sample Time: 1030

Sample Description (clarity/color): Clear No Color Sample Odor: (Y) or (N) Explain: _____

Other Observations/Comments: _____

Analysis Requested: Routine Number of Containers: 6

Sampling Completion: Time 1046 Date 11-12-19 Samplers KDE

On-Site Technical Services, Inc.
Groundwater Suppression, Leachate, Residential Water Sampling

Project: Hyland Facility - Angelica, New York Date: 11-11-19
Sampling Location: H. Gordon RES Sample ID: H. Gordon - 1119 Arrival Time: 1352

Weather Conditions

Temp. 34 ° F () Sunny () Partly Cloudy (X) Cloudy () Light Rain () Hvy. Rain () Snow
Wind Conditions: 0-10 mph

Location Type

() Groundwater Suppression () Leachate () Secondary Leachate (X) Residential Water () Other
Description: _____

Flow and Depth Information (as appropriate)

Depth: NA Estimated Flow: _____ Comments: _____

Field Parameters (as appropriate)

Meter: YSI (sn: 17D108273), Hach 2100P (sn: 12410) Measured in: () Submerged Probe (X) Cup
Note: Turbidity measured from a vial grab sample

Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)
<u>1400</u>	<u>7.46</u>	<u>996.8</u>	<u>.23</u>	<u>NA</u>	<u>10.3</u>	<u>122.2</u>

Sample Information

Sample Type: (X) Grab () Composite Sample Location: () Discharge Pipe () Pond () Ditch

Location Description/Condition: Basement Sink

Sample Collection Equipment/Method: Grab Sample Time: 1400

Sample Description (clarity/color): clear No Color Sample Odor: (Y) or (N) Explain: _____

Other Observations/Comments: _____

Analysis Requested: Routine Number of Containers: 6

Sampling Completion: Time 1415 Date 11-11-19 Samplers K D, E

On-Site Technical Services, Inc.
Groundwater Suppression, Leachate, Residential Water Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-12-19

Sampling Location: E. Gordon Camp 2 Sample ID: Gordon Camp 2-1119 Arrival Time: 1138

Weather Conditions

Temp 24 ° F () Sunny Partly Cloudy () Cloudy () Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-5mph

Location Type

() Groundwater Suppression () Leachate () Secondary Leachate Residential Water () Other

Description: _____

Flow and Depth Information (as appropriate)

Depth: NA Estimated Flow: NA Comments: _____

Field Parameters (as appropriate)

Meter: YSI (sn: 17D108273), Hach 2100P (sn: 12410) Measured in: () Submerged Probe Cup
Note: Turbidity measured from a vial grab sample

Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)
<u>1150</u>	<u>7.44</u>	<u>574.5</u>	<u>1.03</u>	<u>NA</u>	<u>12.6</u>	<u>4-77.0</u>

Sample Information

Sample Type: Grab () Composite Sample Location: () Discharge Pipe () Pond () Ditch

Location Description/Condition: Kitchen Sink - ~~Rt~~ Riley Rd 1/2 way up on South of Rd (on the right)

Sample Collection Equipment/Method: Direct Grab Sample Time: 1150

Sample Description (clarity/color): Clear No Color Sample Odor (Y) or (N) Explain: Slight Sulfur odor

Other Observations/Comments: Resident (Mr Gordon) Declined to have CAMP 2 + E. Gordon Residence Sampled.

Analysis Requested: Routine Number of Containers: 6

Sampling Completion: Time 1210 Date 11-12-19 Samplers K D/E

On-Site Technical Services, Inc.
Groundwater Suppression, Leachate, Residential Water Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-11-19

Sampling Location: Goodliff ~~House~~
- Spring Sample ID: Goodliff-1119 Arrival Time: 0956

Weather Conditions

Temp. 34 ° F () Sunny () Partly Cloudy Cloudy () Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-5mph

Location Type

() Groundwater Suppression () Leachate () Secondary Leachate Residential Water () Other

Description: _____

Flow and Depth Information (as appropriate)

Depth: 73ft Estimated Flow: _____ Comments: _____

Field Parameters (as appropriate)

Meter: YSI (sn: 17 D108273), Hach 2100P (sn: 12410) Measured in: () Submerged Probe Cup
Note: Turbidity measured from a vial grab sample

Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)
<u>1000</u>	<u>7.46</u>	<u>647.6</u>	<u>.60</u>	<u>NA</u>	<u>6.2</u>	<u>150.1</u>

Sample Information

Sample Type: Grab () Composite Sample Location: () Discharge Pipe () Pond ^{Tank} Ditch

Location Description/Condition: Spring in TANK up behind House - Rte 20 south of
Riky Rd House #6502

Sample Collection Equipment/Method: dipper 2 liter Sample Time: 1000

Sample Description (clarity/color): clear No color Sample Odor: (Y) or (N) Explain: _____

Other Observations/Comments: _____

Analysis Requested: Routine Number of Containers: 6

Sampling Completion: Time 1019 Date 11-11-19 Samplers R D E

On-Site Technical Services, Inc.
Groundwater Suppression, Leachate, Residential Water Sampling

Project: Hyland Facility - Angelica, New York

Date: 11/19

Sampling Location: Goodliff Trs - Well Sample ID: Goodliff Trailer - 119 Arrival Time: 1027

Weather Conditions

Temp. 34 ° F () Sunny () Partly Cloudy (X) Cloudy () Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-5 mph

Location Type

() Groundwater Suppression () Leachate () Secondary Leachate (X) Residential Water () Other

Description: _____

Flow and Depth Information (as appropriate)

Depth: 10-15 ft Estimated Flow: NA Comments: _____

Field Parameters (as appropriate)

Meter: YSI (sn: 170108273), Hach 2100P (sn: 12410) Measured in: () Submerged Probe (X) Cup
Note: Turbidity measured from a vial grab sample

Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)
<u>1045</u>	<u>8.10</u>	<u>325.8</u>	<u>15.2</u>	<u>NA</u>	<u>10.5</u>	<u>116.3</u>

Sample Information

Sample Type: (X) Grab () Composite Sample Location: () Discharge Pipe () Pond (X) ^{Well} Ditch

Location Description/Condition: Well casing - 6" well not being pumped water

Appears Stagnant. Sampled collected by lowering Raiber into well casing

Sample Collection Equipment/Method: Raiber Sample Time: 1045

Sample Description (clarity/color): Clear w/ Particulates Sample Odor: (Y) or (N) Explain: _____

Other Observations/Comments: Not being used - Trailer -
Location RTE 20 South of Riley - House Trailer Aligned Parallel to Road.

Analysis Requested: Routine Number of Containers: 6

Sampling Completion: Time 1115 Date 11-11-19 Samplers R. Dye

On-Site Technical Services, Inc.

Groundwater Suppression, Leachate, Residential Water Sampling

Project: Hyland Facility - Angelica, New York Date: 11-11-19

Sampling Location: Hutchesons Sample ID: Hutchesons-1119 Arrival Time: 1129
Pre Filter

Weather Conditions

Temp: 36° F () Sunny () Partly Cloudy (X) Cloudy () Light Rain () Hvy. Rain () Snow

Wind Conditions: 0-5 mph

Location Type

() Groundwater Suppression () Leachate () Secondary Leachate (X) Residential Water () Other

Description: _____

Flow and Depth Information (as appropriate)

Depth: NA Estimated Flow: NA Comments: _____

Field Parameters (as appropriate)

Meter: YSI (sn: 17D108273), Hach 2100P (sn: 12410) Measured in: () Submerged Probe (X) Cup
 Note: Turbidity measured from a vial grab sample

Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)
<u>1130</u>	<u>8.11</u>	<u>1088</u>	<u>3.45</u>	<u>NA</u>	<u>10.0</u>	<u>-52.4</u>

Sample Information

Sample Type: (X) Grab () Composite Sample Location: () Discharge Pipe () Pond () Ditch

Location Description/Condition: Sink in Basement - Water not run thru Calligan
water systems. Water source being is well. Corner of Riley Rd and Rte 20

Sample Collection Equipment/Method: Grab Sample Time: 1130

Sample Description (clarity/color): Clear no color Sample Odor: (Y) or (N) Explain: _____

Other Observations/Comments: _____

Analysis Requested: Routine Number of Containers: 6

Sampling Completion: Time 1151 Date 11-11-19 Samplers R Dye

On-Site Technical Services, Inc.

Groundwater Suppression, Leachate, Residential Water Sampling

Project: Hyland Facility - Angelica, New York

Date: 11-12-19

Sampling Location: Swineford^{Res} Sample ID: Swineford-1119 Arrival Time: 1100
410 Shawmut Rd

Weather Conditions

Temp. 19 ° F () Sunny () Partly Cloudy () Cloudy () Light Rain () Hvy. Rain () Snow ^{light}

Wind Conditions: 0-5 mph

Location Type

() Groundwater Suppression () Leachate () Secondary Leachate () Residential Water () Other

Description: _____

Flow and Depth Information (as appropriate)

Depth: NA Estimated Flow: NA Comments: _____

Field Parameters (as appropriate)

Meter: YSI (sn: 17D108273), Hach 2100P (sn: 12410) Measured in: () Submerged Probe () Cup
 Note: Turbidity measured from a vial grab sample

Time	pH	Conductivity (us/cm)	Turbidity (ntu)	D.O. (mg/L)	Temp. (°C)	ORP (mV)
<u>1110</u> <u>1400</u>	<u>6.04</u> <u>6.80</u>	<u>212.9</u> <u>USE DATA ENTRY</u>	<u>.32</u>	<u>NA</u>	<u>11.7</u>	<u>231.2</u>

Sample Information

Sample Type: () Grab () Composite Sample Location: () Discharge Pipe () Pond () Ditch

Location Description/Condition: Bathroom Sink - No Filter - North of 86 on Shawmut Rd - 40 House # (end of Rd)

Sample Collection Equipment/Method: Direct Grab Sample Time: 1110

Sample Description (clarity/color): Clear No color Sample Odor: (Y) or (N) Explain: _____

Other Observations/Comments: Checked pH at warmer Temp with both 146100804 & 17D108273

Analysis Requested: Routine Number of Containers: 6

Sampling Completion: Time 1119 Date 11-12-19 Samplers K Dye

Appendix B

Lab Analytical Reports



November 12, 2019

Service Request No:R1910783

Russell Anderson
Casella Waste - Hyland
4 Chenell Drive
Suite 200
Concord, NH 03301

Laboratory Results for: Hyland Facility - Routine Parameters

Dear Russell,

Enclosed are the results of the sample(s) submitted to our laboratory November 05, 2019
For your reference, these analyses have been assigned our service request number **R1910783**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Brady Kalkman
For

Janice Jaeger
Project Manager

CC: Jon Brandes

ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
PHONE +1 585 288 5380 | FAX +1 585 288 8475
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com



Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910783
Date Received: 11/05/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Four water samples were received for analysis at ALS Environmental on 11/05/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

General Chemistry:

No significant anomalies were noted with this analysis.

A handwritten signature in black ink, appearing to read "Samantha", is written over a horizontal line.

Approved by _____

Date 11/12/2019



SAMPLE DETECTION SUMMARY

CLIENT ID: MW34-1119 **Lab ID: R1910783-001**

Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	236		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Ammonia as Nitrogen, undistilled	0.318		0.003	0.050	mg/L	350.1
Chloride	21.3		0.5	2.0	mg/L	9056A
Hardness, Total as CaCO3	184			6.62	mg/L	SM 2340 B-1997 (2011)
Nitrogen, Total Kjeldahl (TKN)	0.29		0.10	0.20	mg/L	351.2
Phenolics, Total Recoverable	0.0014	J	0.0010	0.0050	mg/L	9066
Solids, Total Dissolved (TDS)	384		9	10	mg/L	SM 2540 C-1997 (2011)
Sulfate	64.8		0.4	2.0	mg/L	9056A
Calcium, Total	49400		300	1000	ug/L	6010C
Iron, Total	200		20	100	ug/L	6010C
Magnesium, Total	14700		30	1000	ug/L	6010C
Manganese, Total	137		4	10	ug/L	6010C
Potassium, Total	1300	J	200	2000	ug/L	6010C
Sodium, Total	75400		200	1000	ug/L	6010C

CLIENT ID: DUP1-1119 **Lab ID: R1910783-002**

Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	236		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Ammonia as Nitrogen, undistilled	0.320		0.003	0.050	mg/L	350.1
Chloride	21.7		0.5	2.0	mg/L	9056A
Hardness, Total as CaCO3	180			6.62	mg/L	SM 2340 B-1997 (2011)
Nitrogen, Total Kjeldahl (TKN)	0.40		0.10	0.20	mg/L	351.2
Phenolics, Total Recoverable	0.0013	J	0.0010	0.0050	mg/L	9066
Solids, Total Dissolved (TDS)	387		9	10	mg/L	SM 2540 C-1997 (2011)
Sulfate	65.9		0.4	2.0	mg/L	9056A
Calcium, Total	48400		300	1000	ug/L	6010C
Iron, Total	190		20	100	ug/L	6010C
Magnesium, Total	14500		30	1000	ug/L	6010C
Manganese, Total	135		4	10	ug/L	6010C
Potassium, Total	1300	J	200	2000	ug/L	6010C
Sodium, Total	74000		200	1000	ug/L	6010C

CLIENT ID: MW48-1119 **Lab ID: R1910783-003**

Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	215		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Carbon, Total Organic (TOC)	0.7	J	0.5	1.0	mg/L	SM 5310 C-2000 (2011)
Chloride	15.0		0.5	2.0	mg/L	9056A



SAMPLE DETECTION SUMMARY

CLIENT ID: MW48-1119 **Lab ID: R1910783-003**

Analyte	Results	Flag	MDL	MRL	Units	Method
Hardness, Total as CaCO3	593			6.62	mg/L	SM 2340 B-1997 (2011)
Phenolics, Total Recoverable	0.0015	J	0.0010	0.0050	mg/L	9066
Solids, Total Dissolved (TDS)	815		9	10	mg/L	SM 2540 C-1997 (2011)
Sulfate	412		4	20	mg/L	9056A
Calcium, Total	158000		300	1000	ug/L	6010C
Iron, Total	270		20	100	ug/L	6010C
Magnesium, Total	48000		30	1000	ug/L	6010C
Manganese, Total	43		4	10	ug/L	6010C
Potassium, Total	3600		200	2000	ug/L	6010C
Sodium, Total	33800		200	1000	ug/L	6010C

CLIENT ID: GSS5-1119 **Lab ID: R1910783-004**

Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	208		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Chloride	13.6		0.5	2.0	mg/L	9056A
Hardness, Total as CaCO3	257			6.62	mg/L	SM 2340 B-1997 (2011)
Solids, Total Dissolved (TDS)	313		9	10	mg/L	SM 2540 C-1997 (2011)
Sulfate	38.2		0.4	2.0	mg/L	9056A
Calcium, Total	66500		300	1000	ug/L	6010C
Iron, Total	140		20	100	ug/L	6010C
Magnesium, Total	22000		30	1000	ug/L	6010C
Manganese, Total	178		4	10	ug/L	6010C
Potassium, Total	2800		200	2000	ug/L	6010C
Sodium, Total	9300		200	1000	ug/L	6010C



Sample Receipt Information

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters

Service Request:R1910783

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1910783-001	MW34-1119	11/4/2019	1030
R1910783-002	DUP1-1119	11/4/2019	1040
R1910783-003	MW48-1119	11/4/2019	1200
R1910783-004	GSS5-1119	11/4/2019	1225



ALS-Environmental
1565 Jefferson Rd, Bldg 300, Suite 360
Rochester, NY 14623
585.288.5380

Client: **Casella/On-Site**
6653 Herdman Rd
Angelica NY. 14709

Project Manager: **Russ Anderson/Jon Brandes**

CHAIN of CUSTODY

Project: **Hyland - Routine Parameters**

Telephone No. 585-593-1824 Email: jonb@on-sitche.com

Page 1 of 1

Method of Shipment
UPS

Sample I.D.	Lab Sample No.	No. of Containers	Matrix				Prsv.		Sampling Date	Sampling Time	BOD (NP)	Phenols & TOC (H2SO4)	Alkalinity (NP)	NH3, TKN, COD (H2SO4)	T-Metals, Hardness (Routine) (HNO3)	TDS, NO3, Br, Cl, SO4 (NP)											
			Soil	Water	Air	Other	Yes	No																			
MW34-1119		60	X				X	X	11-4-19	1030	X	X	X	X	X	X											
Duel-1119		60	X				X	X	11-4-19	1040	X	X	X	X	X	X											
MW48-1119		60	X				X	X	11-4-19	1200	X	X	X	X	X	X											
GSS5-1119		60	X				X	X	11-4-19	1225	X	X	X	X	X	X											

Special Detection
Limit/Reporting

PDF to Russ and On-Site, and EDD to On-Site.

REMARKS

Sample Received Intact: Yes No Temperature received: Ice No ice

Relinq. by sampler (Sign & Print Name) <i>Kevin Dye Kevin Dye</i>	Date 11-4-19	Time 1540	Received by (Sign & Print Name)
Relinquished by	Date	Time	Received by
Relinquished by	Date	Time	Received by
Relinquished by	Date	Time	Received by laboratory <i>Sung Lee</i>
	Date 11/5/19	Time 1155	

Lab Work No.

R1910783 **5**

Casella Waste - Hyland
Hyland Facility - Routine Parameters



Cooler Receipt and Preservation Check Form

R1910783

5

Casella Waste - Hyland
Hyland Facility - Routine Parameters



Project/Client Casella - Hyland Folder Number _____

Cooler received on 11/5/19 by: ⓐ

COURIER: ALS UPS ~~FEDEX~~ VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	<u>Y</u> N
2	Custody papers properly completed (ink, signed)?	<u>Y</u> N
3	Did all bottles arrive in good condition (unbroken)?	<u>Y</u> N
4	Circle: <u>Wet Ice</u> Dry Ice Gel packs present?	<u>Y</u> N

5a	Perchlorate samples have required headspace?	Y N <u>NA</u>
5b	Did <u>VOA</u> vials <u>Alk</u> Sulfide have sig* bubbles?	Y <u>N</u> NA
6	Where did the bottles originate?	<u>ALS/ROG</u> CLIENT
7	Soil VOA received as: Bulk Encore 5035set	<u>NA</u>

8. Temperature Readings Date: 11/5/19 Time: 1213 ID: IR#7 IR#10 From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>1.1</u>							
Correction Factor (°C)	<u>-</u>							
Corrected Temp (°C)								
Temp from: Type of bottle								
Within 0-6°C?	<u>Y</u> N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule
& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by ⓐ on 11/5/19 at 1218
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 11/5/19 Time: 1504 by: ⓐ

- 9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
- 10. Did all bottle labels and tags agree with custody papers? YES NO
- 11. Were correct containers used for the tests indicated? YES NO
- 12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO
- 13. Air Samples: Cassettes / Tubes Intact with MS? _____ Canisters Pressurized _____ Tedlar® Bags Inflated N/A

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
≤2	<u>230015</u>	HNO ₃	<u>✓</u>		<u>1118081</u>					
≤2		H ₂ SO ₄	<u>✓</u>		<u>202739</u>					
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN <u>Phenol 625</u> , 608pest, 522	<u>✓</u>		If+, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**						

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 19-09-03 082919-2AAD, 093019-1BMC, 80819-02
Explain all Discrepancies/ Other Comments:

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
ALS	REV

Labels secondary reviewed by: ⓐ
PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



Miscellaneous Forms

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REPORT QUALIFIERS AND DEFINITIONS

<p>U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p>J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).</p> <p>B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p>E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p>E Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p>D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p>* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p>H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p># Spike was diluted out.</p>	<p>+ Correlation coefficient for MSA is <0.995.</p> <p>N Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p>N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p>S Concentration has been determined using Method of Standard Additions (MSA).</p> <p>W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.</p> <p>P Concentration >40% difference between the two GC columns.</p> <p>C Confirmed by GC/MS</p> <p>Q DoD reports: indicates a pesticide/Aroclor is not confirmed (>100% Difference between two GC columns).</p> <p>X See Case Narrative for discussion.</p> <p>MRL Method Reporting Limit. Also known as:</p> <p>LOQ Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p>MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p>LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p>ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p>
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Rochester Lab ID # for State Certifications¹

Connecticut ID # PH0556	Maine ID #NY0032	Pennsylvania ID# 68-786
Delaware Approved	New Hampshire ID # 2941	Rhode Island ID # 158
DoD ELAP #65817	New York ID # 10145	Virginia #460167
Florida ID # E87674	North Carolina #676	

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

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Analyst Summary report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters/

Service Request: R1910783

Sample Name: MW34-1119
Lab Code: R1910783-001
Sample Matrix: Water

Date Collected: 11/4/19
Date Received: 11/5/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		MROGERSON
351.2	NSMITH	GNITAJOUPPI
410.4		CWOODS
6010C	AKONZEL	KMCLAEN
9056A		KWONG
9066		BBOWE
SM 2320 B-1997(2011)		STALARICO
SM 2540 C-1997(2011)		KAWONG
SM 5210 B-2001(2011)		NSMITH
SM 5310 C-2000(2011)		CWOODS

Sample Name: DUP1-1119
Lab Code: R1910783-002
Sample Matrix: Water

Date Collected: 11/4/19
Date Received: 11/5/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		MROGERSON
351.2	NSMITH	GNITAJOUPPI
410.4		CWOODS
6010C	AKONZEL	KMCLAEN
9056A		KWONG
9066		BBOWE
SM 2320 B-1997(2011)		STALARICO
SM 2540 C-1997(2011)		KAWONG
SM 5210 B-2001(2011)		NSMITH
SM 5310 C-2000(2011)		CWOODS

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters/

Service Request: R1910783

Sample Name: MW48-1119
Lab Code: R1910783-003
Sample Matrix: Water

Date Collected: 11/4/19
Date Received: 11/5/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		MROGERSON
351.2	NSMITH	GNITAJOUPPI
410.4		CWOODS
6010C	AKONZEL	KMCLAEN
9056A		KAWONG
9056A		KWONG
9066		BBOWE
SM 2320 B-1997(2011)		STALARICO
SM 2540 C-1997(2011)		KAWONG
SM 5210 B-2001(2011)		NSMITH
SM 5310 C-2000(2011)		CWOODS

Sample Name: GSS5-1119
Lab Code: R1910783-004
Sample Matrix: Water

Date Collected: 11/4/19
Date Received: 11/5/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		MROGERSON
351.2	NSMITH	GNITAJOUPPI
410.4		CWOODS
6010C	AKONZEL	KMCLAEN
9056A		KWONG
9066		BBOWE
SM 2320 B-1997(2011)		STALARICO
SM 2540 C-1997(2011)		KAWONG
SM 5210 B-2001(2011)		NSMITH
SM 5310 C-2000(2011)		CWOODS



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.



Sample Results

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Metals

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910783
Date Collected: 11/04/19 10:30
Date Received: 11/05/19 11:55

Sample Name: MW34-1119
Lab Code: R1910783-001

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/07/19 19:08	11/06/19	
Calcium, Total	6010C	49400	ug/L	1000	300	1	11/07/19 19:08	11/06/19	
Iron, Total	6010C	200	ug/L	100	20	1	11/07/19 19:08	11/06/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/07/19 19:08	11/06/19	
Magnesium, Total	6010C	14700	ug/L	1000	30	1	11/07/19 19:08	11/06/19	
Manganese, Total	6010C	137	ug/L	10	4	1	11/07/19 19:08	11/06/19	
Potassium, Total	6010C	1300 J	ug/L	2000	200	1	11/07/19 19:08	11/06/19	
Sodium, Total	6010C	75400	ug/L	1000	200	1	11/07/19 19:08	11/06/19	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910783
Date Collected: 11/04/19 10:40
Date Received: 11/05/19 11:55

Sample Name: DUP1-1119
Lab Code: R1910783-002

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/07/19 19:11	11/06/19	
Calcium, Total	6010C	48400	ug/L	1000	300	1	11/07/19 19:11	11/06/19	
Iron, Total	6010C	190	ug/L	100	20	1	11/07/19 19:11	11/06/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/07/19 19:11	11/06/19	
Magnesium, Total	6010C	14500	ug/L	1000	30	1	11/07/19 19:11	11/06/19	
Manganese, Total	6010C	135	ug/L	10	4	1	11/07/19 19:11	11/06/19	
Potassium, Total	6010C	1300 J	ug/L	2000	200	1	11/07/19 19:11	11/06/19	
Sodium, Total	6010C	74000	ug/L	1000	200	1	11/07/19 19:11	11/06/19	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: MW48-1119
Lab Code: R1910783-003

Service Request: R1910783
Date Collected: 11/04/19 12:00
Date Received: 11/05/19 11:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/07/19 19:15	11/06/19	
Calcium, Total	6010C	158000	ug/L	1000	300	1	11/07/19 19:15	11/06/19	
Iron, Total	6010C	270	ug/L	100	20	1	11/07/19 19:15	11/06/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/07/19 19:15	11/06/19	
Magnesium, Total	6010C	48000	ug/L	1000	30	1	11/07/19 19:15	11/06/19	
Manganese, Total	6010C	43	ug/L	10	4	1	11/07/19 19:15	11/06/19	
Potassium, Total	6010C	3600	ug/L	2000	200	1	11/07/19 19:15	11/06/19	
Sodium, Total	6010C	33800	ug/L	1000	200	1	11/07/19 19:15	11/06/19	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910783
Date Collected: 11/04/19 12:25
Date Received: 11/05/19 11:55

Sample Name: GSS5-1119
Lab Code: R1910783-004

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/07/19 19:18	11/06/19	
Calcium, Total	6010C	66500	ug/L	1000	300	1	11/07/19 19:18	11/06/19	
Iron, Total	6010C	140	ug/L	100	20	1	11/07/19 19:18	11/06/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/07/19 19:18	11/06/19	
Magnesium, Total	6010C	22000	ug/L	1000	30	1	11/07/19 19:18	11/06/19	
Manganese, Total	6010C	178	ug/L	10	4	1	11/07/19 19:18	11/06/19	
Potassium, Total	6010C	2800	ug/L	2000	200	1	11/07/19 19:18	11/06/19	
Sodium, Total	6010C	9300	ug/L	1000	200	1	11/07/19 19:18	11/06/19	



General Chemistry

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: MW34-1119
Lab Code: R1910783-001

Service Request: R1910783
Date Collected: 11/04/19 10:30
Date Received: 11/05/19 11:55
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	236	mg/L	2.0	1.8	1	11/06/19 15:41	NA	
Ammonia as Nitrogen, undistilled	350.1	0.318	mg/L	0.050	0.003	1	11/08/19 20:35	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/06/19 08:33	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/06/19 09:49	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	0.5	1	11/09/19 04:09	NA	
Chemical Oxygen Demand, Total	410.4	5.0 U	mg/L	5.0	3.8	1	11/10/19 14:47	NA	
Chloride	9056A	21.3	mg/L	2.0	0.5	10	11/06/19 09:49	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	184	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	0.2	10	11/06/19 09:49	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.29	mg/L	0.20	0.10	1	11/08/19 12:13	11/07/19	
Phenolics, Total Recoverable	9066	0.0014 J	mg/L	0.0050	0.0010	1	11/11/19 21:16	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	384	mg/L	10	9	1	11/07/19 11:15	NA	
Sulfate	9056A	64.8	mg/L	2.0	0.4	10	11/06/19 09:49	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: DUP1-1119
Lab Code: R1910783-002

Service Request: R1910783
Date Collected: 11/04/19 10:40
Date Received: 11/05/19 11:55
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	236	mg/L	2.0	1.8	1	11/06/19 16:00	NA	
Ammonia as Nitrogen, undistilled	350.1	0.320	mg/L	0.050	0.003	1	11/08/19 20:36	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/06/19 08:39	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/06/19 10:07	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	0.5	1	11/09/19 04:30	NA	
Chemical Oxygen Demand, Total	410.4	5.0 U	mg/L	5.0	3.8	1	11/10/19 14:47	NA	
Chloride	9056A	21.7	mg/L	2.0	0.5	10	11/06/19 10:07	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	180	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	0.2	10	11/06/19 10:07	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.40	mg/L	0.20	0.10	1	11/08/19 12:14	11/07/19	
Phenolics, Total Recoverable	9066	0.0013 J	mg/L	0.0050	0.0010	1	11/11/19 21:20	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	387	mg/L	10	9	1	11/07/19 11:15	NA	
Sulfate	9056A	65.9	mg/L	2.0	0.4	10	11/06/19 10:07	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: MW48-1119
Lab Code: R1910783-003

Service Request: R1910783
Date Collected: 11/04/19 12:00
Date Received: 11/05/19 11:55
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	215	mg/L	2.0	1.8	1	11/06/19 16:06	NA	
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.003	1	11/08/19 20:37	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/06/19 08:32	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/06/19 10:13	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	0.7 J	mg/L	1.0	0.5	1	11/09/19 04:51	NA	
Chemical Oxygen Demand, Total	410.4	5.0 U	mg/L	5.0	3.8	1	11/10/19 14:47	NA	
Chloride	9056A	15.0	mg/L	2.0	0.5	10	11/06/19 10:13	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	593	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	0.2	10	11/06/19 10:13	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20 U	mg/L	0.20	0.10	1	11/08/19 12:15	11/07/19	
Phenolics, Total Recoverable	9066	0.0015 J	mg/L	0.0050	0.0010	1	11/11/19 21:25	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	815	mg/L	10	9	1	11/07/19 11:15	NA	
Sulfate	9056A	412	mg/L	20	4	100	11/07/19 20:29	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: GSS5-1119
Lab Code: R1910783-004

Service Request: R1910783
Date Collected: 11/04/19 12:25
Date Received: 11/05/19 11:55

Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	208	mg/L	2.0	1.8	1	11/06/19 16:12	NA	
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.003	1	11/08/19 20:38	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/06/19 08:31	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/06/19 10:19	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	0.5	1	11/09/19 05:12	NA	
Chemical Oxygen Demand, Total	410.4	5.0 U	mg/L	5.0	3.8	1	11/10/19 14:47	NA	
Chloride	9056A	13.6	mg/L	2.0	0.5	10	11/06/19 10:19	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	257	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	0.2	10	11/06/19 10:19	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20 U	mg/L	0.20	0.10	1	11/08/19 12:15	11/07/19	
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.0010	1	11/11/19 21:29	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	313	mg/L	10	9	1	11/07/19 11:15	NA	
Sulfate	9056A	38.2	mg/L	2.0	0.4	10	11/06/19 10:19	NA	



QC Summary Forms

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Metals

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1910783-MB

Service Request: R1910783
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/07/19 17:50	11/06/19	
Calcium, Total	6010C	1000 U	ug/L	1000	300	1	11/07/19 17:50	11/06/19	
Iron, Total	6010C	100 U	ug/L	100	20	1	11/07/19 17:50	11/06/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/07/19 17:50	11/06/19	
Magnesium, Total	6010C	1000 U	ug/L	1000	30	1	11/07/19 17:50	11/06/19	
Manganese, Total	6010C	10 U	ug/L	10	4	1	11/07/19 17:50	11/06/19	
Potassium, Total	6010C	2000 U	ug/L	2000	200	1	11/07/19 17:50	11/06/19	
Sodium, Total	6010C	1000 U	ug/L	1000	200	1	11/07/19 17:50	11/06/19	

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QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910783
Date Analyzed: 11/07/19

Duplicate Lab Control Sample Summary
Inorganic Parameters

Units:ug/L
Basis:NA

Lab Control Sample
R1910783-LCS

Duplicate Lab Control Sample
R1910783-DLCS

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Cadmium, Total	6010C	52.8	50.0	106	52.4	50.0	105	80-120	<1	20
Calcium, Total	6010C	1870	2000	94	1840	2000	92	80-120	2	20
Iron, Total	6010C	997	1000	100	988	1000	99	80-120	<1	20
Lead, Total	6010C	518	500	104	514	500	103	80-120	<1	20
Magnesium, Total	6010C	1990	2000	100	1970	2000	99	80-120	1	20
Manganese, Total	6010C	520	500	104	515	500	103	80-120	<1	20
Potassium, Total	6010C	20100	20000	101	20000	20000	100	80-120	<1	20
Sodium, Total	6010C	20300	20000	102	20100	20000	101	80-120	1	20



General Chemistry

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1910783-MB1

Service Request: R1910783
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	2.0 U	mg/L	2.0	1.8	1	11/06/19 11:30	NA	
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.003	1	11/08/19 20:02	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/06/19 17:20	NA	
Bromide	9056A	0.10 U	mg/L	0.10	0.04	1	11/06/19 09:37	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	0.5	1	11/08/19 22:56	NA	
Chemical Oxygen Demand, Total	410.4	5.0 U	mg/L	5.0	3.8	1	11/10/19 14:47	NA	
Chloride	9056A	0.20 U	mg/L	0.20	0.05	1	11/06/19 09:37	NA	
Nitrate as Nitrogen	9056A	0.10 U	mg/L	0.10	0.02	1	11/06/19 09:37	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20 U	mg/L	0.20	0.10	1	11/08/19 12:04	11/07/19	
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.0010	1	11/11/19 19:56	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	10 U	mg/L	10	9	1	11/07/19 11:15	NA	
Sulfate	9056A	0.20 U	mg/L	0.20	0.04	1	11/06/19 09:37	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1910783-MB2

Service Request: R1910783
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	2.0 U	mg/L	2.0	1.8	1	11/06/19 15:50	
Sulfate	9056A	0.20 U	mg/L	0.20	0.04	1	11/07/19 17:02	

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QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request:R1910783
Date Collected:11/04/19
Date Received:11/05/19
Date Analyzed:11/6/19

**Duplicate Matrix Spike Summary
General Chemistry Parameters**

Sample Name: MW34-1119
Lab Code: R1910783-001

Units:mg/L
Basis:NA

**Matrix Spike
R1910783-001MS**

**Duplicate Matrix Spike
R1910783-001DMS**

Analyte Name	Method	Sample		Spike		Duplicate Matrix Spike		% Rec Limits	RPD	RPD Limit	
		Result	Result	Amount	% Rec	Result	Amount				% Rec
Bromide	9056A	1.0 U	10.3	10.0	103	10.3	10.0	103	80-120	<1	15
Chloride	9056A	21.3	42.3	20.0	105	42.2	20.0	104	80-120	<1	15
Sulfate	9056A	64.8	83.3	20.0	92	83.5	20.0	94	80-120	<1	15
Nitrate as Nitrogen	9056A	1.0 U	10.1	10.0	101	10.1	10.0	101	80-120	<1	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910783
Date Analyzed: 11/06/19 - 11/11/19

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R1910783-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	16.4	20.0	82	80-120
Ammonia as Nitrogen, undistilled	350.1	0.251	0.250	101	90-110
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	185	198	93	85-115
Bromide	9056A	1.01	1.00	101	80-120
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	10.4	10.0	104	80-121
Chemical Oxygen Demand, Total	410.4	50.0	50.0	100	90-110
Chloride	9056A	2.03	2.00	102	80-120
Nitrate as Nitrogen	9056A	1.01	1.00	101	80-120
Nitrogen, Total Kjeldahl (TKN)	351.2	2.31	2.50	92	90-110
Phenolics, Total Recoverable	9066	0.0403	0.0400	101	85-115
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	900	914	98	90-110
Sulfate	9056A	2.01	2.00	101	80-120

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QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910783
Date Analyzed: 11/06/19 - 11/07/19

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R1910783-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	19.2	20.0	96	80-120
Sulfate	9056A	2.02	2.00	101	80-120



November 19, 2019

Service Request No:R1910844

Russell Anderson
Casella Waste - Hyland
4 Chenell Drive
Suite 200
Concord, NH 03301

Laboratory Results for: Hyland Facility - Routine Parameters

Dear Russell,

Enclosed are the results of the sample(s) submitted to our laboratory November 06, 2019
For your reference, these analyses have been assigned our service request number **R1910844**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Janice Jaeger
Project Manager

CC: Jon Brandes

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Narrative Documents

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Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Received: 11/06/2019 - 11/08/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Twenty two water samples were received for analysis at ALS Environmental on 11/06/2019 - 11/08/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

Method 6010C, 11/14/2019: The control limits for matrix spike recovery of one or more of the spiked analytes are not applicable and have been flagged with a "#". The concentration of the analyte(s) in the parent sample is more than 4x the spike concentration. No further corrective action was required.

General Chemistry:

No significant anomalies were noted with this analysis.

A handwritten signature in black ink, appearing to read "Samantha", is written over a horizontal line.

Approved by _____

Date 11/19/2019



SAMPLE DETECTION SUMMARY

CLIENT ID: MW26-1119 **Lab ID: R1910844-001**

Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	379		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Carbon, Total Organic (TOC)	8.0		0.5	1.0	mg/L	SM 5310 C-2000 (2011)
Chemical Oxygen Demand, Total	23.2		3.8	5.0	mg/L	410.4
Chloride	99.5		0.5	2.0	mg/L	9056A
Hardness, Total as CaCO3	588			6.62	mg/L	SM 2340 B-1997 (2011)
Nitrate as Nitrogen	0.7	J	0.2	1.0	mg/L	9056A
Nitrogen, Total Kjeldahl (TKN)	0.45		0.10	0.20	mg/L	351.2
Solids, Total Dissolved (TDS)	804		9	10	mg/L	SM 2540 C-1997 (2011)
Sulfate	165		0.8	4.0	mg/L	9056A
Calcium, Total	167000		300	1000	ug/L	6010C
Iron, Total	130		20	100	ug/L	6010C
Magnesium, Total	41700		30	1000	ug/L	6010C
Manganese, Total	6	J	4	10	ug/L	6010C
Potassium, Total	1900	J	200	2000	ug/L	6010C
Sodium, Total	60100		200	1000	ug/L	6010C

CLIENT ID: MW14-1119 **Lab ID: R1910844-002**

Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	139		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Chemical Oxygen Demand, Total	3.9	J	3.8	5.0	mg/L	410.4
Chloride	2.7		0.5	2.0	mg/L	9056A
Hardness, Total as CaCO3	152			6.62	mg/L	SM 2340 B-1997 (2011)
Solids, Total Dissolved (TDS)	193		9	10	mg/L	SM 2540 C-1997 (2011)
Sulfate	19.8		0.4	2.0	mg/L	9056A
Calcium, Total	42800		300	1000	ug/L	6010C
Iron, Total	30	J	20	100	ug/L	6010C
Magnesium, Total	10900		30	1000	ug/L	6010C
Potassium, Total	1900	J	200	2000	ug/L	6010C
Sodium, Total	3400		200	1000	ug/L	6010C

CLIENT ID: MW40A-1119 **Lab ID: R1910844-003**

Analyte	Results	Flag	MDL	MRL	Units	Method
Ammonia as Nitrogen, undistilled	0.006	J	0.003	0.050	mg/L	350.1
Carbon, Total Organic (TOC)	1.0	J	0.5	1.0	mg/L	SM 5310 C-2000 (2011)
Chemical Oxygen Demand, Total	4.2	J	3.8	5.0	mg/L	410.4
Chloride	3.6		0.5	2.0	mg/L	9056A
Hardness, Total as CaCO3	1400			6.62	mg/L	SM 2340 B-1997 (2011)



SAMPLE DETECTION SUMMARY

CLIENT ID: MW40A-1119 **Lab ID: R1910844-003**

Analyte	Results	Flag	MDL	MRL	Units	Method
Nitrate as Nitrogen	0.3	J	0.2	1.0	mg/L	9056A
Nitrogen, Total Kjeldahl (TKN)	0.22		0.10	0.20	mg/L	351.2
Solids, Total Dissolved (TDS)	2000		9	10	mg/L	SM 2540 C-1997 (2011)
Sulfate	1180		8	40	mg/L	9056A
Calcium, Total	298000		3000	10000	ug/L	6010C
Iron, Total	50	J	20	100	ug/L	6010C
Magnesium, Total	160000		30	1000	ug/L	6010C
Manganese, Total	7	J	4	10	ug/L	6010C
Potassium, Total	9300		200	2000	ug/L	6010C
Sodium, Total	58200		200	1000	ug/L	6010C

CLIENT ID: MW41A-1119 **Lab ID: R1910844-004**

Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	365		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Carbon, Total Organic (TOC)	2.1		0.5	1.0	mg/L	SM 5310 C-2000 (2011)
Chemical Oxygen Demand, Total	7.7		3.8	5.0	mg/L	410.4
Chloride	3.4		0.5	2.0	mg/L	9056A
Hardness, Total as CaCO3	2420			6.62	mg/L	SM 2340 B-1997 (2011)
Nitrate as Nitrogen	0.6	J	0.2	1.0	mg/L	9056A
Nitrogen, Total Kjeldahl (TKN)	0.11	J	0.10	0.20	mg/L	351.2
Phenolics, Total Recoverable	0.0012	J	0.0010	0.0050	mg/L	9066
Solids, Total Dissolved (TDS)	3610		18	20	mg/L	SM 2540 C-1997 (2011)
Sulfate	2330		16	80	mg/L	9056A
Calcium, Total	554000		3000	10000	ug/L	6010C
Iron, Total	190		20	100	ug/L	6010C
Magnesium, Total	251000		30	1000	ug/L	6010C
Manganese, Total	13		4	10	ug/L	6010C
Potassium, Total	13200		200	2000	ug/L	6010C
Sodium, Total	110000		200	1000	ug/L	6010C

CLIENT ID: MW42A-1119 **Lab ID: R1910844-005**

Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	364		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Carbon, Total Organic (TOC)	1.1		0.5	1.0	mg/L	SM 5310 C-2000 (2011)
Chemical Oxygen Demand, Total	4.2	J	3.8	5.0	mg/L	410.4
Hardness, Total as CaCO3	2080			6.62	mg/L	SM 2340 B-1997 (2011)
Nitrogen, Total Kjeldahl (TKN)	0.18	J	0.10	0.20	mg/L	351.2
Calcium, Total	514000		3000	10000	ug/L	6010C



SAMPLE DETECTION SUMMARY

CLIENT ID: MW42A-1119 **Lab ID: R1910844-005**

Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Total	5610		20	100	ug/L	6010C
Magnesium, Total	192000		30	1000	ug/L	6010C
Manganese, Total	261		4	10	ug/L	6010C
Potassium, Total	17900		200	2000	ug/L	6010C
Sodium, Total	98900		200	1000	ug/L	6010C

CLIENT ID: MW45A-1119 **Lab ID: R1910844-006**

Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	232		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Ammonia as Nitrogen, undistilled	0.262		0.003	0.050	mg/L	350.1
Biochemical Oxygen Demand (BOD)	14.6			2.0	mg/L	SM 5210 B-2001 (2011)
Carbon, Total Organic (TOC)	15.9		0.5	1.0	mg/L	SM 5310 C-2000 (2011)
Chemical Oxygen Demand, Total	47.7		3.8	5.0	mg/L	410.4
Chloride	12.6		0.5	2.0	mg/L	9056A
Hardness, Total as CaCO3	658			6.62	mg/L	SM 2340 B-1997 (2011)
Nitrate as Nitrogen	0.4	J	0.2	1.0	mg/L	9056A
Nitrogen, Total Kjeldahl (TKN)	0.44		0.10	0.20	mg/L	351.2
Solids, Total Dissolved (TDS)	1110		9	10	mg/L	SM 2540 C-1997 (2011)
Sulfate	572		4	20	mg/L	9056A
Calcium, Total	189000		300	1000	ug/L	6010C
Iron, Total	2630		20	100	ug/L	6010C
Magnesium, Total	45300		30	1000	ug/L	6010C
Manganese, Total	1850		4	10	ug/L	6010C
Potassium, Total	9200		200	2000	ug/L	6010C
Sodium, Total	84000		200	1000	ug/L	6010C

CLIENT ID: MW34A-1119 **Lab ID: R1910844-007**

Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	224		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Ammonia as Nitrogen, undistilled	0.182		0.003	0.050	mg/L	350.1
Biochemical Oxygen Demand (BOD)	2.4			2.0	mg/L	SM 5210 B-2001 (2011)
Carbon, Total Organic (TOC)	3.7		0.5	1.0	mg/L	SM 5310 C-2000 (2011)
Chemical Oxygen Demand, Total	12.2		3.8	5.0	mg/L	410.4
Chloride	2.7		0.5	2.0	mg/L	9056A
Hardness, Total as CaCO3	1300			6.62	mg/L	SM 2340 B-1997 (2011)
Nitrate as Nitrogen	0.4	J	0.2	1.0	mg/L	9056A
Nitrogen, Total Kjeldahl (TKN)	0.32		0.10	0.20	mg/L	351.2



SAMPLE DETECTION SUMMARY

CLIENT ID: MW34A-1119 **Lab ID: R1910844-007**

Analyte	Results	Flag	MDL	MRL	Units	Method
Solids, Total Dissolved (TDS)	2050		18	20	mg/L	SM 2540 C-1997 (2011)
Sulfate	1350		12	60	mg/L	9056A
Calcium, Total	333000		3000	10000	ug/L	6010C
Iron, Total	4340		20	100	ug/L	6010C
Magnesium, Total	113000		30	1000	ug/L	6010C
Manganese, Total	1970		4	10	ug/L	6010C
Potassium, Total	12400		200	2000	ug/L	6010C
Sodium, Total	92200		200	1000	ug/L	6010C

CLIENT ID: MW37A-1119 **Lab ID: R1910844-008**

Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	353		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Carbon, Total Organic (TOC)	1.1		0.5	1.0	mg/L	SM 5310 C-2000 (2011)
Chemical Oxygen Demand, Total	6.3		3.8	5.0	mg/L	410.4
Chloride	1.7	J	0.5	2.0	mg/L	9056A
Hardness, Total as CaCO3	894			6.62	mg/L	SM 2340 B-1997 (2011)
Phenolics, Total Recoverable	0.0011	BJ	0.0010	0.0050	mg/L	9066
Solids, Total Dissolved (TDS)	1270		9	10	mg/L	SM 2540 C-1997 (2011)
Sulfate	639		4	20	mg/L	9056A
Calcium, Total	217000		3000	10000	ug/L	6010C
Iron, Total	200		20	100	ug/L	6010C
Magnesium, Total	85500		30	1000	ug/L	6010C
Manganese, Total	23		4	10	ug/L	6010C
Potassium, Total	12000		200	2000	ug/L	6010C
Sodium, Total	43300		200	1000	ug/L	6010C

CLIENT ID: MW36A-1119 **Lab ID: R1910844-009**

Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	406		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Carbon, Total Organic (TOC)	2.0		0.5	1.0	mg/L	SM 5310 C-2000 (2011)
Hardness, Total as CaCO3	2000			6.62	mg/L	SM 2340 B-1997 (2011)
Phenolics, Total Recoverable	0.0015	BJ	0.0010	0.0050	mg/L	9066
Calcium, Total	473000		3000	10000	ug/L	6010C
Iron, Total	300		20	100	ug/L	6010C
Magnesium, Total	199000		30	1000	ug/L	6010C
Manganese, Total	16		4	10	ug/L	6010C
Potassium, Total	11700		200	2000	ug/L	6010C
Sodium, Total	76100		200	1000	ug/L	6010C



SAMPLE DETECTION SUMMARY

CLIENT ID: MW36A-1119 **Lab ID: R1910844-009**

CLIENT ID: GSS2GH-1119 **Lab ID: R1910844-010**

Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	340		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Ammonia as Nitrogen, undistilled	0.246		0.003	0.050	mg/L	350.1
Carbon, Total Organic (TOC)	2.8		0.5	1.0	mg/L	SM 5310 C-2000 (2011)
Chemical Oxygen Demand, Total	10.5		3.8	5.0	mg/L	410.4
Chloride	7.6		0.5	2.0	mg/L	9056A
Hardness, Total as CaCO3	784			6.62	mg/L	SM 2340 B-1997 (2011)
Nitrate as Nitrogen	1.4		0.2	1.0	mg/L	9056A
Nitrogen, Total Kjeldahl (TKN)	0.40		0.10	0.20	mg/L	351.2
Phenolics, Total Recoverable	0.0013	BJ	0.0010	0.0050	mg/L	9066
Solids, Total Dissolved (TDS)	1090		9	10	mg/L	SM 2540 C-1997 (2011)
Sulfate	494		4	20	mg/L	9056A
Calcium, Total	177000		3000	10000	ug/L	6010C
Iron, Total	2430		20	100	ug/L	6010C
Magnesium, Total	83200		30	1000	ug/L	6010C
Manganese, Total	979		4	10	ug/L	6010C
Potassium, Total	8000		200	2000	ug/L	6010C
Sodium, Total	23300		200	1000	ug/L	6010C

CLIENT ID: GSS1-1119 **Lab ID: R1910844-011**

Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	146		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Carbon, Total Organic (TOC)	2.5		0.5	1.0	mg/L	SM 5310 C-2000 (2011)
Chemical Oxygen Demand, Total	11.5		3.8	5.0	mg/L	410.4
Chloride	9.1		0.5	2.0	mg/L	9056A
Hardness, Total as CaCO3	180			6.62	mg/L	SM 2340 B-1997 (2011)
Nitrate as Nitrogen	0.5	J	0.2	1.0	mg/L	9056A
Nitrogen, Total Kjeldahl (TKN)	0.10	J	0.10	0.20	mg/L	351.2
Solids, Total Dissolved (TDS)	243		9	10	mg/L	SM 2540 C-1997 (2011)
Sulfate	36.0		0.4	2.0	mg/L	9056A
Calcium, Total	54800		300	1000	ug/L	6010C
Iron, Total	790		20	100	ug/L	6010C
Magnesium, Total	10500		30	1000	ug/L	6010C
Manganese, Total	25		4	10	ug/L	6010C
Potassium, Total	3300		200	2000	ug/L	6010C
Sodium, Total	5800		200	1000	ug/L	6010C



SAMPLE DETECTION SUMMARY

CLIENT ID: MW19-1119 **Lab ID: R1910844-012**

Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	217		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Carbon, Total Organic (TOC)	1.2		0.5	1.0	mg/L	SM 5310 C-2000 (2011)
Chloride	23.5		0.5	2.0	mg/L	9056A
Hardness, Total as CaCO3	260			6.62	mg/L	SM 2340 B-1997 (2011)
Nitrate as Nitrogen	0.7	J	0.2	1.0	mg/L	9056A
Solids, Total Dissolved (TDS)	310		10	11	mg/L	SM 2540 C-1997 (2011)
Sulfate	29.4		0.4	2.0	mg/L	9056A
Calcium, Total	65700		300	1000	ug/L	6010C
Iron, Total	430	B	20	100	ug/L	6010C
Magnesium, Total	23200		30	1000	ug/L	6010C
Manganese, Total	28		4	10	ug/L	6010C
Potassium, Total	3500		200	2000	ug/L	6010C
Sodium, Total	16400		200	1000	ug/L	6010C

CLIENT ID: MW37-1119 **Lab ID: R1910844-013**

Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	213		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Chloride	11.6		0.5	2.0	mg/L	9056A
Hardness, Total as CaCO3	261			6.62	mg/L	SM 2340 B-1997 (2011)
Solids, Total Dissolved (TDS)	307		9	10	mg/L	SM 2540 C-1997 (2011)
Sulfate	44.5		0.4	2.0	mg/L	9056A
Calcium, Total	67100		300	1000	ug/L	6010C
Iron, Total	60	BJ	20	100	ug/L	6010C
Magnesium, Total	22600		30	1000	ug/L	6010C
Potassium, Total	2300		200	2000	ug/L	6010C
Sodium, Total	7500		200	1000	ug/L	6010C

CLIENT ID: MW47A-1119 **Lab ID: R1910844-014**

Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	246		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Ammonia as Nitrogen, undistilled	0.180		0.003	0.050	mg/L	350.1
Biochemical Oxygen Demand (BOD)	2.0			2.0	mg/L	SM 5210 B-2001 (2011)
Carbon, Total Organic (TOC)	1.6		0.5	1.0	mg/L	SM 5310 C-2000 (2011)
Chemical Oxygen Demand, Total	4.9	J	3.8	5.0	mg/L	410.4
Chloride	3.1		0.5	2.0	mg/L	9056A
Hardness, Total as CaCO3	819			6.62	mg/L	SM 2340 B-1997 (2011)



SAMPLE DETECTION SUMMARY

CLIENT ID: MW47A-1119 Lab ID: R1910844-014

Analyte	Results	Flag	MDL	MRL	Units	Method
Nitrate as Nitrogen	0.4	J	0.2	1.0	mg/L	9056A
Nitrogen, Total Kjeldahl (TKN)	0.31		0.10	0.20	mg/L	351.2
Solids, Total Dissolved (TDS)	1230		10	11	mg/L	SM 2540 C-1997 (2011)
Sulfate	703		4	20	mg/L	9056A
Calcium, Total	208000		3000	10000	ug/L	6010C
Iron, Total	1250		20	100	ug/L	6010C
Magnesium, Total	72500		30	1000	ug/L	6010C
Manganese, Total	1480		4	10	ug/L	6010C
Potassium, Total	6100		200	2000	ug/L	6010C
Sodium, Total	52600		200	1000	ug/L	6010C

CLIENT ID: MW40A-1119 Lab ID: R1910844-015

Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	379		1.8	2.0	mg/L	SM 2320 B-1997 (2011)

CLIENT ID: EB1-1119 Lab ID: R1910844-017

Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	2.4		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Chemical Oxygen Demand, Total	4.2	J	3.8	5.0	mg/L	410.4
Nitrogen, Total Kjeldahl (TKN)	0.71		0.10	0.20	mg/L	351.2
Solids, Total Dissolved (TDS)	9	J	9	10	mg/L	SM 2540 C-1997 (2011)
Iron, Total	20	BJ	20	100	ug/L	6010C

CLIENT ID: MW31-1119 Lab ID: R1910844-018

Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	91.2		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Chloride	53.0		0.5	2.0	mg/L	9056A
Hardness, Total as CaCO3	185			6.62	mg/L	SM 2340 B-1997 (2011)
Nitrate as Nitrogen	0.6	J	0.2	1.0	mg/L	9056A
Solids, Total Dissolved (TDS)	256		9	10	mg/L	SM 2540 C-1997 (2011)
Sulfate	56.2		0.4	2.0	mg/L	9056A
Calcium, Total	53500		300	1000	ug/L	6010C
Iron, Total	60	BJ	20	100	ug/L	6010C
Magnesium, Total	12500		30	1000	ug/L	6010C
Potassium, Total	1800	J	200	2000	ug/L	6010C
Sodium, Total	11600		200	1000	ug/L	6010C



SAMPLE DETECTION SUMMARY

CLIENT ID: MW40-1119 **Lab ID: R1910844-019**

Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	187		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Chloride	10.9		0.5	2.0	mg/L	9056A
Hardness, Total as CaCO3	234			6.62	mg/L	SM 2340 B-1997 (2011)
Solids, Total Dissolved (TDS)	284		9	10	mg/L	SM 2540 C-1997 (2011)
Sulfate	48.8		0.4	2.0	mg/L	9056A
Calcium, Total	48400		300	1000	ug/L	6010C
Iron, Total	240	B	20	100	ug/L	6010C
Magnesium, Total	27400		30	1000	ug/L	6010C
Manganese, Total	6	J	4	10	ug/L	6010C
Potassium, Total	2900		200	2000	ug/L	6010C
Sodium, Total	9500		200	1000	ug/L	6010C

CLIENT ID: MW42A-1119 **Lab ID: R1910844-020**

Analyte	Results	Flag	MDL	MRL	Units	Method
Chloride	3.9		0.5	2.0	mg/L	9056A
Nitrate as Nitrogen	0.4	J	0.2	1.0	mg/L	9056A
Solids, Total Dissolved (TDS)	3170		18	20	mg/L	SM 2540 C-1997 (2011)
Sulfate	1950		12	60	mg/L	9056A

CLIENT ID: MW36A-1119 **Lab ID: R1910844-021**

Analyte	Results	Flag	MDL	MRL	Units	Method
Chemical Oxygen Demand, Total	6.7		3.8	5.0	mg/L	410.4
Chloride	3.0		0.5	2.0	mg/L	9056A
Solids, Total Dissolved (TDS)	2990		18	20	mg/L	SM 2540 C-1997 (2011)
Sulfate	1800		12	60	mg/L	9056A

CLIENT ID: DB1-1119 **Lab ID: R1910844-022**

Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	76.4		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Ammonia as Nitrogen, undistilled	0.170		0.003	0.050	mg/L	350.1
Carbon, Total Organic (TOC)	2.8		0.5	1.0	mg/L	SM 5310 C-2000 (2011)
Chemical Oxygen Demand, Total	9.8		3.8	5.0	mg/L	410.4
Chloride	4.9		0.5	2.0	mg/L	9056A
Hardness, Total as CaCO3	103			6.62	mg/L	SM 2340 B-1997 (2011)
Nitrate as Nitrogen	0.6	J	0.2	1.0	mg/L	9056A
Nitrogen, Total Kjeldahl (TKN)	0.77		0.10	0.20	mg/L	351.2
Solids, Total Dissolved (TDS)	203		9	10	mg/L	SM 2540 C-1997 (2011)
Sulfate	18.7		0.4	2.0	mg/L	9056A

SAMPLE DETECTION SUMMARY

CLIENT ID: DB1-1119 **Lab ID: R1910844-022**

Analyte	Results	Flag	MDL	MRL	Units	Method
Calcium, Total	30600		300	1000	ug/L	6010C
Iron, Total	8950		20	100	ug/L	6010C
Lead, Total	5	J	3	50	ug/L	6010C
Magnesium, Total	6400		30	1000	ug/L	6010C
Manganese, Total	221		4	10	ug/L	6010C
Potassium, Total	7600		200	2000	ug/L	6010C
Sodium, Total	3200		200	1000	ug/L	6010C



Sample Receipt Information

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters

Service Request:R1910844

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1910844-001	MW26-1119	11/5/2019	0810
R1910844-002	MW14-1119	11/5/2019	0845
R1910844-003	MW40A-1119	11/5/2019	0910
R1910844-004	MW41A-1119	11/5/2019	0935
R1910844-005	MW42A-1119	11/5/2019	1005
R1910844-006	MW45A-1119	11/5/2019	1030
R1910844-007	MW34A-1119	11/5/2019	1100
R1910844-008	MW37A-1119	11/5/2019	1135
R1910844-009	MW36A-1119	11/5/2019	1205
R1910844-010	GSS2GH-1119	11/5/2019	1325
R1910844-011	GSS1-1119	11/5/2019	1415
R1910844-012	MW19-1119	11/6/2019	0905
R1910844-013	MW37-1119	11/6/2019	1140
R1910844-014	MW47A-1119	11/6/2019	1325
R1910844-015	MW40A-1119	11/6/2019	1410
R1910844-016	MW42A-1119	11/6/2019	1425
R1910844-017	EB1-1119	11/7/2019	0800
R1910844-018	MW31-1119	11/7/2019	1010
R1910844-019	MW40-1119	11/7/2019	1210
R1910844-020	MW42A-1119	11/7/2019	1235
R1910844-021	MW36A-1119	11/7/2019	1310
R1910844-022	DB1-1119	11/7/2019	1330



ALS-Environmental
 1565 Jefferson Rd, Bldg 300, Suite 360
 Rochester, NY 14623
 585.288.5380

Client: **Casella/On-Site**
 6653 Herdman Rd
 Angelica NY. 14709

Project Manager: **Russ Anderson/Jon Brandes**

CHAIN of CUSTODY

Project: **Hyland - Routine Parameters**

Telephone No: 585-593-1824
 Email: jonb@on-sitehs.com

Method of Shipment

UPS

Special Detection Limit/Reporting

PDF to Russ and On-Site, and EDD to On-Site.

Sample I.D.

Lab Sample No.	No. of Containers	Matrix				Prsv.		Sampling Date	Sampling Time	BOD (NP)	Phenols & TOC (H2SO4)	Alkalinity (NP)	NH3, TKN, COD (H2SO4)	T-Metals, Hardness (Routine) (HNO3)	TDS, NO3, Br, Cl, SO4 (NP)																					
		Soil	Water	Air	Other	Yes	No																													
MW26-1119	6	X				X	X	11-5-19	0810	X	X	X	X	X	X																					
MW14-1119	6	X				X	X	11-5-19	0845	X	X	X	X	X	X																					
MW40A-1119	4	X				X	X	11-5-19	0910		X		X	X	X																					
MW41A-1119	5	X				X	X	11-5-19	0935		X	X	X	X	X																					
MW42A-1119	4	X				X	X	11-5-19	1005		X	X	X	X	X																					
MW45A-1119	6	X				X	X	11-5-19	1030	X	X	X	X	X	X																					
MW34A-1119	6	X				X	X	5-1-19	1100	X	X	X	X	X	X																					
MW37A-1119	6	X				X	X	5-1-19	1135	X	X	X	X	X	X																					
MW36A-1119	3	X				X	X	5-1-19	1205		X	X		X																						
GSS2GH-1119	6	X				X	X	5-1-19	1325	X	X	X	X	X	X																					
GSS1-1119	6	X				X	X	5-1-19	1415	X	X	X	X	X	X																					

REMARKS

Sample Received Intact: Yes No Temperature received: Ice No ice

Relinq. by sampler (Sign & Print Name) *Kevin Dye* Date 11-5-19 Time 1530 Received by (Sign & Print Name)

Relinquished by _____ Date _____ Time _____ Received by _____

Relinquished by _____ Date _____ Time _____ Received by _____

Relinquished by _____ Date _____ Time _____ Received by laboratory *[Signature]* Date 11/6/19 Time 1145

Lab Work No.

R1910844 **5**

Casella Waste - Hyland
 Hyland Facility - Routine Parameters



Cooler Receipt and Preservation Check Form

R1910844

5

Cassella Waste - Hyland
Hyland Facility - Routine Parameters



Project/Client Cassella Folder Number _____

Cooler received on 11/6/19 by: Q

COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	<input checked="" type="radio"/> Y <input type="radio"/> N
2	Custody papers properly completed (ink, signed)?	<input checked="" type="radio"/> Y <input type="radio"/> N
3	Did all bottles arrive in good condition (unbroken)?	<input checked="" type="radio"/> Y <input type="radio"/> N
4	Circle: <u>Wet Ice</u> Dry Ice Gel packs present?	<input checked="" type="radio"/> Y <input type="radio"/> N

5a	Perchlorate samples have required headspace?	Y <input type="radio"/> N <input checked="" type="radio"/> NA
5b	Did <u>VOA</u> vials, <u>Alk</u> or Sulfide have sig* bubbles?	Y <input checked="" type="radio"/> N <input type="radio"/> NA
6	Where did the bottles originate?	<u>ALS/ROC</u> CLIENT
7	Soil VOA received as: Bulk Encore 5035set	<input checked="" type="radio"/> NA

3. Temperature Readings Date: 11/6/19 Time: 1212 ID: IR#7 IR#10 From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>1.6</u>	<u>4.2</u>					
Within 0-6°C?	<input checked="" type="radio"/> Y <input type="radio"/> N	<input checked="" type="radio"/> Y <input type="radio"/> N	Y <input type="radio"/> N	Y <input type="radio"/> N	Y <input type="radio"/> N	Y <input type="radio"/> N	Y <input type="radio"/> N
If <0°C, were samples frozen?	Y <input type="radio"/> N	Y <input type="radio"/> N	Y <input type="radio"/> N	Y <input type="radio"/> N	Y <input type="radio"/> N	Y <input type="radio"/> N	Y <input type="radio"/> N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule
& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by Q on 11/6/19 at 1212
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 11/6/19 Time: 1925 by: Q

- 9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
- 10. Did all bottle labels and tags agree with custody papers? YES NO
- 11. Were correct containers used for the tests indicated? YES NO
- 12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO N/A
- 13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated N/A

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
≤2	<u>230018</u>	HNO ₃	✓		<u>1118081</u>					
≤2	↓	H ₂ SO ₄	✓		<u>202739</u>	<u>10/20</u>				
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522	✓		If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**						

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: R-09-03, 072219-1BMC, 082619-29AA, 80819-02
Explain all Discrepancies/ Other Comments: _____

HPROD	BULK
HTR	FLDT
SUB	HGFB
ALS	LL3541

Labels secondary reviewed by: Q
PC Secondary Review: _____

Sample I.D.	Lab Sample No.	No. of Containers	Matrix				Prsv.		Sampling Date	Sampling Time	BOD (NP)	Phenols & TOC (H2SO4)	Alkalinity (NP)	NH3, TKN, COD (H2SO4)	T-Metals, Hardness (Routine) (HNO3)	TDS, NO3, Br, Cl, SO4 (NP)																
			Soil	Water	Air	Other	Yes	No																								

Special Detection Limit/Reporting

PDF to Russ and On-Site, and EDD to On-Site.

MW19-1119		12	X			X	X	11-6-19	0905	X	X	X	X	X	X																					
MW37-1119		6	X			X	X	11-6-19	1140	X	X	X	X	X	X																					
MW47A-1119		4	X			X	X	11-6-19	1325	X	X	X	X	X	X	Y																				
MW40A-1119		1	X				X	11-6-19	1410			X																								
MW42A-1119		1	X				X	11-6-19	1425	X																										

-MS/MSD

-minimal Sample

R
E
M
A
R
K
S

Sample Received Intact: Yes No Temperature received: Ice No ice

Relinq. by sampler (Sign & Print Name) <i>Kevin Dye / Kevin Dye</i>	Date <i>11-6-19</i>	Time <i>1530</i>	Received by (Sign & Print Name)	
Relinquished by	Date	Time	Received by	
Relinquished by	Date	Time	Received by	
Relinquished by	Date	Time	Received by laboratory <i>[Signature]</i>	Date <i>11/7/19</i>
				Time <i>1215</i>

Lab Work No.



Cooler Receipt and Preservation Check Form

R1910844**5**Casella Waste - Hyland
Hyland Facility - Routine ParametersProject/Client Casella - Hyland Folder Number _____Cooler received on 11/7/19 by: QCOURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	<u>(Y)</u> N
2	Custody papers properly completed (ink, signed)?	<u>(Y)</u> N
3	Did all bottles arrive in good condition (unbroken)?	<u>(Y)</u> N
4	Circle: <u>(Wet Ice)</u> Dry Ice Gel packs present?	<u>(Y)</u> N

5a	Perchlorate samples have required headspace?	Y N <u>(NA)</u>
5b	Did VOA vials, <u>(Alk)</u> or Sulfide have sig* bubbles?	Y <u>(N)</u> NA
6	Where did the bottles originate?	<u>(ALS/ROC)</u> CLIENT
7	Soil VOA received as: Bulk Encore 5035set	<u>(NA)</u>

8. Temperature Readings Date: 11/7/19 Time: 1240 ID: IR#7 (IR#10) From: (Temp Blank) Sample Bottle

Observed Temp (°C)	<u>1.0</u>						
Within 0-6°C?	<u>(Y)</u> N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule
& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____All samples held in storage location: R-02 by Q on 11/7/19 at 1241
5035 samples placed in storage location: _____ by _____ on _____ at _____Cooler Breakdown/Preservation Check**: Date: 11/8/19 Time: 1535 by: du

9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
10. Did all bottle labels and tags agree with custody papers? YES NO
11. Were correct containers used for the tests indicated? YES NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO (N/A)
13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated (N/A)

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
≤2	<u>230018</u>	HNO ₃	<u>✓</u>		<u>1118081</u>	<u>10/20</u>				
≤2	<u>↓</u>	H ₂ SO ₄	<u>✓</u>		<u>20273A</u>	<u>6</u>				
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**	<u>du</u>					

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 14-09-03, 093019-13M, 0224-062619-240, 80819-02
Explain all Discrepancies/ Other Comments:

HPROD	BULK
HTR	FLDT
SUB	HGFB
ALS	LL3541

Labels secondary reviewed by: du
PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



ALS-Environmental
1565 Jefferson Rd, Bldg 300, Suite 360
Rochester, NY 14623
585.288.5380

Client: Casella/On-Site		CHAIN of CUSTODY		Page <u>1</u> of <u>1</u>
6653 Herdman Rd		Project: Hyland - Routine Parameters		Method of Shipment <i>ups</i>
Angelica NY. 14709		Telephone No. 585-593-1824	Email: jonb@on-sitehs.com	
Project Manager Russ Anderson/Jon Brandes		Special Detection Limit/Reporting		

Sample I.D.	Lab Sample No.	No. of Containers	Matrix				Prsv.		Sampling Date	Sampling Time	BOD (NP)	Phenols & TOC (H2SO4)	Alkalinity (NP)	NH3, TKN, COD (H2SO4)	T-Metals, Hardness (Routine) (HNO3)	TDS, NO3, Br, Cl, SO4 (NP)																						
			Soil	Water	Air	Other	Yes	No																														
<i>EBI-1119</i>		<i>6</i>	<i>X</i>			<i>X</i>	<i>X</i>	<i>11-7-19</i>	<i>0800</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>																							
<i>MW31-1119</i>		<i>6</i>	<i>X</i>			<i>X</i>	<i>X</i>	<i>11-7-19</i>	<i>1010</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>																							
<i>MW40-1119</i>		<i>6</i>	<i>X</i>			<i>X</i>	<i>X</i>	<i>11-7-19</i>	<i>1210</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>																							
<i>MW42A-1119</i>		<i>1</i>	<i>X</i>				<i>X</i>	<i>11-7-19</i>	<i>1235</i>					<i>X</i>																								
<i>MW36A-1119</i>		<i>2</i>	<i>X</i>			<i>X</i>	<i>X</i>	<i>11-7-19</i>	<i>1310</i>				<i>X</i>		<i>X</i>																							
<i>DBI-1119</i>		<i>6</i>	<i>X</i>			<i>X</i>	<i>X</i>	<i>11-7-19</i>	<i>1330</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>																							

PDF to Russ and On-Site, and EDD to On-Site.

-minimal sample

R
E
M
A
R
K
S

Sample Received Intact: Yes No Temperature received: Ice No ice

Relinq. by sampler (Sign & Print Name) <i>Kevin Dye / KEVIN DYE</i>	Date Time <i>11-7-19 1500</i>	Received by (Sign & Print Name)	Lab Work No.
Relinquished by	Date Time	Received by	
Relinquished by	Date Time	Received by	
Relinquished by	Date Time	Received by laboratory <i>Alan...</i>	

R1910844 5
Casella Waste - Hyland
Hyland Facility - Routine Parameters



Cooler Receipt and Preservation Check Form

R1910844

5

Casella Waste - Hyland
Hyland Facility - Routine Parameters



Project/Client Casella Folder Number _____

Cooler received on 11/8/19 by: DLW

COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	<input checked="" type="checkbox"/> N
2	Custody papers properly completed (ink, signed)?	<input checked="" type="checkbox"/> N
3	Did all bottles arrive in good condition (unbroken)?	<input checked="" type="checkbox"/> N
4	Circle: Wet Ice Dry Ice Gel packs present?	<input checked="" type="checkbox"/> N

5a	Perchlorate samples have required headspace?	Y N <input checked="" type="checkbox"/> NA
5b	Did VOA vials, Alk, or Sulfide have sig* bubbles?	Y <input checked="" type="checkbox"/> NA
6	Where did the bottles originate?	AKS/ROC CLIENT
7	Soil VOA received as:	Bulk Encore 5035set <input checked="" type="checkbox"/> NA

8. Temperature Readings Date: 11/8/19 Time: 1215 ID: IR#7 IR#10 From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>1.0°</u>						
Within 0-6°C?	<input checked="" type="checkbox"/> N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule
& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: Rooz by DLW on 11/8/19 at 1215
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 11/10/19 Time: 1115 by: DLW

- 9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
- 10. Did all bottle labels and tags agree with custody papers? YES NO
- 11. Were correct containers used for the tests indicated? YES NO
- 12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO N/A
- 13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated N/A

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
≤2	<u>230018</u>	HNO ₃	<input checked="" type="checkbox"/>		<u>1118081</u>	<u>10/20</u>				
≤2	<u>↓</u>	H ₂ SO ₄	<input checked="" type="checkbox"/>		<u>202739</u>	<u>↓</u>				
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522	<input checked="" type="checkbox"/>		If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**						

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 093019-1BAC, 19-09-03, 082019-ZAC, 80919-4
Explain all Discrepancies/ Other Comments: _____

HPROD	BULK
HTR	FLDT
SUB	HGFB
ALS	LL3541

Labels secondary reviewed by: DLW
PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



Miscellaneous Forms

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

REPORT QUALIFIERS AND DEFINITIONS

<p>U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p>J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).</p> <p>B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p>E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p>E Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p>D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p>* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p>H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p># Spike was diluted out.</p>	<p>+ Correlation coefficient for MSA is <0.995.</p> <p>N Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p>N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p>S Concentration has been determined using Method of Standard Additions (MSA).</p> <p>W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.</p> <p>P Concentration >40% difference between the two GC columns.</p> <p>C Confirmed by GC/MS</p> <p>Q DoD reports: indicates a pesticide/Aroclor is not confirmed ($\times 100\%$ Difference between two GC columns).</p> <p>X See Case Narrative for discussion.</p> <p>MRL Method Reporting Limit. Also known as:</p> <p>LOQ Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p>MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p>LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p>ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p>
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Rochester Lab ID # for State Certifications¹

Connecticut ID # PH0556	Maine ID #NY0032	Pennsylvania ID# 68-786
Delaware Approved	New Hampshire ID # 2941	Rhode Island ID # 158
DoD ELAP #65817	New York ID # 10145	Virginia #460167
Florida ID # E87674	North Carolina #676	

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters/

Service Request: R1910844

Sample Name: MW26-1119
Lab Code: R1910844-001
Sample Matrix: Water

Date Collected: 11/5/19
Date Received: 11/6/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		MROGERSON
351.2	MROGERSON	GNITAJOUPPI
410.4		KMENGs
6010C	AKONZEL	NMANSEN
9056A		KWONG
9056A		KAWONG
9066		BBOWE
SM 2320 B-1997(2011)		STALARICO
SM 2540 C-1997(2011)		KAWONG
SM 5210 B-2001(2011)		NSMITH
SM 5310 C-2000(2011)		CWOODS

Sample Name: MW14-1119
Lab Code: R1910844-002
Sample Matrix: Water

Date Collected: 11/5/19
Date Received: 11/6/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		MROGERSON
351.2	MROGERSON	GNITAJOUPPI
410.4		KMENGs
6010C	AKONZEL	NMANSEN
9056A		KWONG
9066		BBOWE
SM 2320 B-1997(2011)		STALARICO
SM 2540 C-1997(2011)		KAWONG
SM 5210 B-2001(2011)		NSMITH
SM 5310 C-2000(2011)		CWOODS

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters/

Service Request: R1910844

Sample Name: MW40A-1119
Lab Code: R1910844-003
Sample Matrix: Water

Date Collected: 11/5/19
Date Received: 11/6/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		MROGERSON
351.2	MROGERSON	GNITAJOUPPI
410.4		KMENGS
6010C	AKONZEL	NMANSEN
6010C	AKONZEL	KMCLAEN
9056A		KAWONG
9056A		KWONG
9066		BBOWE
SM 2540 C-1997(2011)		KAWONG
SM 5310 C-2000(2011)		CWOODS

Sample Name: MW41A-1119
Lab Code: R1910844-004
Sample Matrix: Water

Date Collected: 11/5/19
Date Received: 11/6/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		MROGERSON
351.2	MROGERSON	GNITAJOUPPI
410.4		KMENGS
6010C	AKONZEL	KMCLAEN
6010C	AKONZEL	NMANSEN
9056A		KWONG
9056A		KAWONG
9066		BBOWE
SM 2320 B-1997(2011)		STALARICO
SM 2540 C-1997(2011)		KAWONG
SM 5210 B-2001(2011)		KMENGS
SM 5310 C-2000(2011)		CWOODS

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters/

Service Request: R1910844

Sample Name: MW42A-1119
Lab Code: R1910844-005
Sample Matrix: Water

Date Collected: 11/5/19
Date Received: 11/6/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		MROGERSON
351.2	MROGERSON	GNITAJOUPPI
410.4		KMENGS
6010C	AKONZEL	NMANSEN
6010C	AKONZEL	KMCLAEN
9066		BBOWE
SM 2320 B-1997(2011)		STALARICO
SM 5310 C-2000(2011)		CWOODS

Sample Name: MW45A-1119
Lab Code: R1910844-006
Sample Matrix: Water

Date Collected: 11/5/19
Date Received: 11/6/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		MROGERSON
351.2	MROGERSON	GNITAJOUPPI
410.4		KMENGS
6010C	AKONZEL	NMANSEN
9056A		KAWONG
9056A		KWONG
9066		BBOWE
SM 2320 B-1997(2011)		STALARICO
SM 2540 C-1997(2011)		KAWONG
SM 5210 B-2001(2011)		KMENGS
SM 5310 C-2000(2011)		CWOODS

Sample Name: MW34A-1119
Lab Code: R1910844-007
Sample Matrix: Water

Date Collected: 11/5/19
Date Received: 11/6/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		MROGERSON

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters/

Service Request: R1910844

Sample Name: MW34A-1119
Lab Code: R1910844-007
Sample Matrix: Water

Date Collected: 11/5/19
Date Received: 11/6/19

Analysis Method	Extracted/Digested By	Analyzed By
351.2	MROGERSON	GNITAJOUPI
410.4		KMENG
6010C	AKONZEL	KMCLAEN
6010C	AKONZEL	NMANSEN
9056A		KAWONG
9056A		KWONG
9066		BBOWE
SM 2320 B-1997(2011)		STALARICO
SM 2540 C-1997(2011)		KAWONG
SM 5210 B-2001(2011)		KMENG
SM 5310 C-2000(2011)		CWOODS

Sample Name: MW37A-1119
Lab Code: R1910844-008
Sample Matrix: Water

Date Collected: 11/5/19
Date Received: 11/6/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		MROGERSON
351.2	MROGERSON	GNITAJOUPI
410.4		KMENG
6010C	AKONZEL	KMCLAEN
6010C	AKONZEL	NMANSEN
9056A		KWONG
9056A		KAWONG
9066		BBOWE
SM 2320 B-1997(2011)		STALARICO
SM 2540 C-1997(2011)		KAWONG
SM 5210 B-2001(2011)		KMENG
SM 5310 C-2000(2011)		CWOODS

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters/

Service Request: R1910844

Sample Name: MW36A-1119
Lab Code: R1910844-009
Sample Matrix: Water

Date Collected: 11/5/19
Date Received: 11/6/19

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN
6010C	AKONZEL	NMANSEN
9066		BBOWE
SM 2320 B-1997(2011)		STALARICO
SM 5310 C-2000(2011)		CWOODS

Sample Name: GSS2GH-1119
Lab Code: R1910844-010
Sample Matrix: Water

Date Collected: 11/5/19
Date Received: 11/6/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		MROGERSON
351.2	MROGERSON	GNITAJOUPI
410.4		KMENG
6010C	AKONZEL	NMANSEN
6010C	AKONZEL	KMCLAEN
9056A		KWONG
9056A		KAWONG
9066		BBOWE
SM 2320 B-1997(2011)		STALARICO
SM 2540 C-1997(2011)		KAWONG
SM 5210 B-2001(2011)		KMENG
SM 5310 C-2000(2011)		CWOODS

Sample Name: GSS1-1119
Lab Code: R1910844-011
Sample Matrix: Water

Date Collected: 11/5/19
Date Received: 11/6/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		MROGERSON
351.2	MROGERSON	GNITAJOUPI
410.4		KMENG

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters/

Service Request: R1910844

Sample Name: GSS1-1119
Lab Code: R1910844-011
Sample Matrix: Water

Date Collected: 11/5/19
Date Received: 11/6/19

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN
9056A		KWONG
9066		BBOWE
SM 2320 B-1997(2011)		STALARICO
SM 2540 C-1997(2011)		KAWONG
SM 5210 B-2001(2011)		KMENGs
SM 5310 C-2000(2011)		CWOODS

Sample Name: MW19-1119
Lab Code: R1910844-012
Sample Matrix: Water

Date Collected: 11/6/19
Date Received: 11/7/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		GNITAJOUPPI
351.2	NSMITH	GNITAJOUPPI
410.4		KMENGs
6010C	AKONZEL	KMCLAEN
9056A		KAWONG
9066		BBOWE
SM 2320 B-1997(2011)		KWONG
SM 2540 C-1997(2011)		KAWONG
SM 5210 B-2001(2011)		KMENGs
SM 5310 C-2000(2011)		CWOODS

Sample Name: MW37-1119
Lab Code: R1910844-013
Sample Matrix: Water

Date Collected: 11/6/19
Date Received: 11/7/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		GNITAJOUPPI
351.2	NSMITH	GNITAJOUPPI
410.4		KMENGs

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters/

Service Request: R1910844

Sample Name: MW37-1119
Lab Code: R1910844-013
Sample Matrix: Water

Date Collected: 11/6/19
Date Received: 11/7/19

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN
9056A		KAWONG
9066		BBOWE
SM 2320 B-1997(2011)		KWONG
SM 2540 C-1997(2011)		KAWONG
SM 5210 B-2001(2011)		KMENGs
SM 5310 C-2000(2011)		CWOODS

Sample Name: MW47A-1119
Lab Code: R1910844-014
Sample Matrix: Water

Date Collected: 11/6/19
Date Received: 11/7/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		GNITAJOUppi
351.2	NSMITH	GNITAJOUppi
410.4		KMENGs
6010C	AKONZEL	KMCLAEN
9056A		KAWONG
9056A		KWONG
9066		BBOWE
SM 2320 B-1997(2011)		KWONG
SM 2540 C-1997(2011)		KAWONG
SM 5210 B-2001(2011)		KMENGs
SM 5310 C-2000(2011)		CWOODS

Sample Name: MW40A-1119
Lab Code: R1910844-015
Sample Matrix: Water

Date Collected: 11/6/19
Date Received: 11/7/19

Analysis Method	Extracted/Digested By	Analyzed By
SM 2320 B-1997(2011)		KWONG

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters/

Service Request: R1910844

Sample Name: MW42A-1119
Lab Code: R1910844-016
Sample Matrix: Water

Date Collected: 11/6/19
Date Received: 11/7/19

Analysis Method
SM 5210 B-2001(2011)

Extracted/Digested By

Analyzed By
KMENG

Sample Name: EB1-1119
Lab Code: R1910844-017
Sample Matrix: Water

Date Collected: 11/7/19
Date Received: 11/8/19

Analysis Method

350.1
351.2
410.4
6010C
9056A
9066
SM 2320 B-1997(2011)
SM 2540 C-1997(2011)
SM 5210 B-2001(2011)
SM 5310 C-2000(2011)

Extracted/Digested By

NSMITH
AKONZEL

Analyzed By

GNITAJOUPPI
GNITAJOUPPI
KMENG
KMCLAEN
KWONG
BBOWE
KWONG
GKNIGHT
KMENG
SMEDBURY

Sample Name: MW31-1119
Lab Code: R1910844-018
Sample Matrix: Water

Date Collected: 11/7/19
Date Received: 11/8/19

Analysis Method

350.1
351.2
410.4
6010C
9056A
9066
SM 2320 B-1997(2011)
SM 2540 C-1997(2011)
SM 5210 B-2001(2011)

Extracted/Digested By

NSMITH
AKONZEL

Analyzed By

GNITAJOUPPI
GNITAJOUPPI
KMENG
KMCLAEN
KWONG
BBOWE
KWONG
GKNIGHT
KMENG

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Analyst Summary report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters/

Service Request: R1910844

Sample Name: MW31-1119
Lab Code: R1910844-018
Sample Matrix: Water

Date Collected: 11/7/19
Date Received: 11/8/19

Analysis Method	Extracted/Digested By	Analyzed By
SM 5310 C-2000(2011)		SMEDBURY

Sample Name: MW40-1119
Lab Code: R1910844-019
Sample Matrix: Water

Date Collected: 11/7/19
Date Received: 11/8/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		GNITAJOUPPI
351.2	NSMITH	GNITAJOUPPI
410.4		KMENGs
6010C	AKONZEL	KMCLAEN
9056A		KWONG
9066		BBOWE
SM 2320 B-1997(2011)		KWONG
SM 2540 C-1997(2011)		GKNIGHT
SM 5210 B-2001(2011)		KMENGs
SM 5310 C-2000(2011)		SMEDBURY

Sample Name: MW42A-1119
Lab Code: R1910844-020
Sample Matrix: Water

Date Collected: 11/7/19
Date Received: 11/8/19

Analysis Method	Extracted/Digested By	Analyzed By
9056A		KWONG
SM 2540 C-1997(2011)		GKNIGHT

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Analyst Summary report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters/

Service Request: R1910844

Sample Name: MW36A-1119
Lab Code: R1910844-021
Sample Matrix: Water

Date Collected: 11/7/19
Date Received: 11/8/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		GNITAJOUPPI
351.2	NSMITH	GNITAJOUPPI
410.4		KMENGs
9056A		KWONG
SM 2540 C-1997(2011)		GKNIGHT

Sample Name: DB1-1119
Lab Code: R1910844-022
Sample Matrix: Water

Date Collected: 11/7/19
Date Received: 11/8/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		GNITAJOUPPI
351.2	NSMITH	GNITAJOUPPI
410.4		KMENGs
6010C	AKONZEL	KMCLAEN
9056A		KWONG
9066		BBOWE
SM 2320 B-1997(2011)		KWONG
SM 2540 C-1997(2011)		GKNIGHT
SM 5210 B-2001(2011)		KMENGs
SM 5310 C-2000(2011)		SMEDBURY



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.



Sample Results

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
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www.alsglobal.com



Metals

ALS Environmental—Rochester Laboratory
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www.alsglobal.com

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: MW26-1119
Lab Code: R1910844-001

Service Request: R1910844
Date Collected: 11/05/19 08:10
Date Received: 11/06/19 11:45
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/09/19 00:02	11/07/19	
Calcium, Total	6010C	167000	ug/L	1000	300	1	11/09/19 00:02	11/07/19	
Iron, Total	6010C	130	ug/L	100	20	1	11/09/19 00:02	11/07/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/09/19 00:02	11/07/19	
Magnesium, Total	6010C	41700	ug/L	1000	30	1	11/09/19 00:02	11/07/19	
Manganese, Total	6010C	6 J	ug/L	10	4	1	11/09/19 00:02	11/07/19	
Potassium, Total	6010C	1900 J	ug/L	2000	200	1	11/09/19 00:02	11/07/19	
Sodium, Total	6010C	60100	ug/L	1000	200	1	11/09/19 00:02	11/07/19	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Collected: 11/05/19 08:45
Date Received: 11/06/19 11:45

Sample Name: MW14-1119
Lab Code: R1910844-002

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/09/19 00:05	11/07/19	
Calcium, Total	6010C	42800	ug/L	1000	300	1	11/09/19 00:05	11/07/19	
Iron, Total	6010C	30 J	ug/L	100	20	1	11/09/19 00:05	11/07/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/09/19 00:05	11/07/19	
Magnesium, Total	6010C	10900	ug/L	1000	30	1	11/09/19 00:05	11/07/19	
Manganese, Total	6010C	10 U	ug/L	10	4	1	11/09/19 00:05	11/07/19	
Potassium, Total	6010C	1900 J	ug/L	2000	200	1	11/09/19 00:05	11/07/19	
Sodium, Total	6010C	3400	ug/L	1000	200	1	11/09/19 00:05	11/07/19	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Collected: 11/05/19 09:10
Date Received: 11/06/19 11:45

Sample Name: MW40A-1119
Lab Code: R1910844-003

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/09/19 00:08	11/07/19	
Calcium, Total	6010C	298000	ug/L	10000	3000	10	11/11/19 14:47	11/07/19	
Iron, Total	6010C	50 J	ug/L	100	20	1	11/09/19 00:08	11/07/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/09/19 00:08	11/07/19	
Magnesium, Total	6010C	160000	ug/L	1000	30	1	11/09/19 00:08	11/07/19	
Manganese, Total	6010C	7 J	ug/L	10	4	1	11/09/19 00:08	11/07/19	
Potassium, Total	6010C	9300	ug/L	2000	200	1	11/09/19 00:08	11/07/19	
Sodium, Total	6010C	58200	ug/L	1000	200	1	11/09/19 00:08	11/07/19	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Collected: 11/05/19 09:35
Date Received: 11/06/19 11:45

Sample Name: MW41A-1119
Lab Code: R1910844-004

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/09/19 00:12	11/07/19	
Calcium, Total	6010C	554000	ug/L	10000	3000	10	11/11/19 14:50	11/07/19	
Iron, Total	6010C	190	ug/L	100	20	1	11/09/19 00:12	11/07/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/09/19 00:12	11/07/19	
Magnesium, Total	6010C	251000	ug/L	1000	30	1	11/09/19 00:12	11/07/19	
Manganese, Total	6010C	13	ug/L	10	4	1	11/09/19 00:12	11/07/19	
Potassium, Total	6010C	13200	ug/L	2000	200	1	11/09/19 00:12	11/07/19	
Sodium, Total	6010C	110000	ug/L	1000	200	1	11/09/19 00:12	11/07/19	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Collected: 11/05/19 10:05
Date Received: 11/06/19 11:45

Sample Name: MW42A-1119
Lab Code: R1910844-005

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/09/19 00:15	11/07/19	
Calcium, Total	6010C	514000	ug/L	10000	3000	10	11/11/19 14:53	11/07/19	
Iron, Total	6010C	5610	ug/L	100	20	1	11/09/19 00:15	11/07/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/09/19 00:15	11/07/19	
Magnesium, Total	6010C	192000	ug/L	1000	30	1	11/09/19 00:15	11/07/19	
Manganese, Total	6010C	261	ug/L	10	4	1	11/09/19 00:15	11/07/19	
Potassium, Total	6010C	17900	ug/L	2000	200	1	11/09/19 00:15	11/07/19	
Sodium, Total	6010C	98900	ug/L	1000	200	1	11/09/19 00:15	11/07/19	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Collected: 11/05/19 10:30
Date Received: 11/06/19 11:45

Sample Name: MW45A-1119
Lab Code: R1910844-006

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/09/19 00:18	11/07/19	
Calcium, Total	6010C	189000	ug/L	1000	300	1	11/09/19 00:18	11/07/19	
Iron, Total	6010C	2630	ug/L	100	20	1	11/09/19 00:18	11/07/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/09/19 00:18	11/07/19	
Magnesium, Total	6010C	45300	ug/L	1000	30	1	11/09/19 00:18	11/07/19	
Manganese, Total	6010C	1850	ug/L	10	4	1	11/09/19 00:18	11/07/19	
Potassium, Total	6010C	9200	ug/L	2000	200	1	11/09/19 00:18	11/07/19	
Sodium, Total	6010C	84000	ug/L	1000	200	1	11/09/19 00:18	11/07/19	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Collected: 11/05/19 11:00
Date Received: 11/06/19 11:45

Sample Name: MW34A-1119
Lab Code: R1910844-007

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/09/19 00:21	11/07/19	
Calcium, Total	6010C	333000	ug/L	10000	3000	10	11/11/19 14:56	11/07/19	
Iron, Total	6010C	4340	ug/L	100	20	1	11/09/19 00:21	11/07/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/09/19 00:21	11/07/19	
Magnesium, Total	6010C	113000	ug/L	1000	30	1	11/09/19 00:21	11/07/19	
Manganese, Total	6010C	1970	ug/L	10	4	1	11/09/19 00:21	11/07/19	
Potassium, Total	6010C	12400	ug/L	2000	200	1	11/09/19 00:21	11/07/19	
Sodium, Total	6010C	92200	ug/L	1000	200	1	11/09/19 00:21	11/07/19	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Collected: 11/05/19 11:35
Date Received: 11/06/19 11:45

Sample Name: MW37A-1119
Lab Code: R1910844-008

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/09/19 00:31	11/07/19	
Calcium, Total	6010C	217000	ug/L	10000	3000	10	11/11/19 14:59	11/07/19	
Iron, Total	6010C	200	ug/L	100	20	1	11/09/19 00:31	11/07/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/09/19 00:31	11/07/19	
Magnesium, Total	6010C	85500	ug/L	1000	30	1	11/09/19 00:31	11/07/19	
Manganese, Total	6010C	23	ug/L	10	4	1	11/09/19 00:31	11/07/19	
Potassium, Total	6010C	12000	ug/L	2000	200	1	11/09/19 00:31	11/07/19	
Sodium, Total	6010C	43300	ug/L	1000	200	1	11/09/19 00:31	11/07/19	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Collected: 11/05/19 12:05
Date Received: 11/06/19 11:45

Sample Name: MW36A-1119
Lab Code: R1910844-009

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/09/19 00:34	11/07/19	
Calcium, Total	6010C	473000	ug/L	10000	3000	10	11/11/19 15:09	11/07/19	
Iron, Total	6010C	300	ug/L	100	20	1	11/09/19 00:34	11/07/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/09/19 00:34	11/07/19	
Magnesium, Total	6010C	199000	ug/L	1000	30	1	11/09/19 00:34	11/07/19	
Manganese, Total	6010C	16	ug/L	10	4	1	11/09/19 00:34	11/07/19	
Potassium, Total	6010C	11700	ug/L	2000	200	1	11/09/19 00:34	11/07/19	
Sodium, Total	6010C	76100	ug/L	1000	200	1	11/09/19 00:34	11/07/19	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Collected: 11/05/19 13:25
Date Received: 11/06/19 11:45

Sample Name: GSS2GH-1119
Lab Code: R1910844-010

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/09/19 00:38	11/07/19	
Calcium, Total	6010C	177000	ug/L	10000	3000	10	11/11/19 15:12	11/07/19	
Iron, Total	6010C	2430	ug/L	100	20	1	11/09/19 00:38	11/07/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/09/19 00:38	11/07/19	
Magnesium, Total	6010C	83200	ug/L	1000	30	1	11/09/19 00:38	11/07/19	
Manganese, Total	6010C	979	ug/L	10	4	1	11/09/19 00:38	11/07/19	
Potassium, Total	6010C	8000	ug/L	2000	200	1	11/09/19 00:38	11/07/19	
Sodium, Total	6010C	23300	ug/L	1000	200	1	11/09/19 00:38	11/07/19	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: GSS1-1119
Lab Code: R1910844-011

Service Request: R1910844
Date Collected: 11/05/19 14:15
Date Received: 11/06/19 11:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/12/19 16:01	11/11/19	
Calcium, Total	6010C	54800	ug/L	1000	300	1	11/12/19 16:01	11/11/19	
Iron, Total	6010C	790	ug/L	100	20	1	11/12/19 16:01	11/11/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/12/19 16:01	11/11/19	
Magnesium, Total	6010C	10500	ug/L	1000	30	1	11/12/19 16:01	11/11/19	
Manganese, Total	6010C	25	ug/L	10	4	1	11/12/19 16:01	11/11/19	
Potassium, Total	6010C	3300	ug/L	2000	200	1	11/12/19 16:01	11/11/19	
Sodium, Total	6010C	5800	ug/L	1000	200	1	11/12/19 16:01	11/11/19	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Collected: 11/06/19 09:05
Date Received: 11/07/19 12:15

Sample Name: MW19-1119
Lab Code: R1910844-012

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/14/19 19:13	11/13/19	
Calcium, Total	6010C	65700	ug/L	1000	300	1	11/14/19 19:13	11/13/19	
Iron, Total	6010C	430 B	ug/L	100	20	1	11/14/19 19:13	11/13/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/14/19 19:13	11/13/19	
Magnesium, Total	6010C	23200	ug/L	1000	30	1	11/14/19 19:13	11/13/19	
Manganese, Total	6010C	28	ug/L	10	4	1	11/14/19 19:13	11/13/19	
Potassium, Total	6010C	3500	ug/L	2000	200	1	11/14/19 19:13	11/13/19	
Sodium, Total	6010C	16400	ug/L	1000	200	1	11/14/19 19:13	11/13/19	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: MW37-1119
Lab Code: R1910844-013

Service Request: R1910844
Date Collected: 11/06/19 11:40
Date Received: 11/07/19 12:15
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/14/19 19:29	11/13/19	
Calcium, Total	6010C	67100	ug/L	1000	300	1	11/14/19 19:29	11/13/19	
Iron, Total	6010C	60 BJ	ug/L	100	20	1	11/14/19 19:29	11/13/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/14/19 19:29	11/13/19	
Magnesium, Total	6010C	22600	ug/L	1000	30	1	11/14/19 19:29	11/13/19	
Manganese, Total	6010C	10 U	ug/L	10	4	1	11/14/19 19:29	11/13/19	
Potassium, Total	6010C	2300	ug/L	2000	200	1	11/14/19 19:29	11/13/19	
Sodium, Total	6010C	7500	ug/L	1000	200	1	11/14/19 19:29	11/13/19	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Collected: 11/06/19 13:25
Date Received: 11/07/19 12:15

Sample Name: MW47A-1119
Lab Code: R1910844-014

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/14/19 19:32	11/13/19	
Calcium, Total	6010C	208000	ug/L	10000	3000	10	11/15/19 17:40	11/13/19	
Iron, Total	6010C	1250	ug/L	100	20	1	11/14/19 19:32	11/13/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/14/19 19:32	11/13/19	
Magnesium, Total	6010C	72500	ug/L	1000	30	1	11/14/19 19:32	11/13/19	
Manganese, Total	6010C	1480	ug/L	10	4	1	11/14/19 19:32	11/13/19	
Potassium, Total	6010C	6100	ug/L	2000	200	1	11/14/19 19:32	11/13/19	
Sodium, Total	6010C	52600	ug/L	1000	200	1	11/14/19 19:32	11/13/19	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Collected: 11/07/19 08:00
Date Received: 11/08/19 12:25

Sample Name: EB1-1119
Lab Code: R1910844-017

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/14/19 19:36	11/13/19	
Calcium, Total	6010C	1000 U	ug/L	1000	300	1	11/14/19 19:36	11/13/19	
Iron, Total	6010C	20 BJ	ug/L	100	20	1	11/14/19 19:36	11/13/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/14/19 19:36	11/13/19	
Magnesium, Total	6010C	1000 U	ug/L	1000	30	1	11/14/19 19:36	11/13/19	
Manganese, Total	6010C	10 U	ug/L	10	4	1	11/14/19 19:36	11/13/19	
Potassium, Total	6010C	2000 U	ug/L	2000	200	1	11/14/19 19:36	11/13/19	
Sodium, Total	6010C	1000 U	ug/L	1000	200	1	11/14/19 19:36	11/13/19	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Collected: 11/07/19 10:10
Date Received: 11/08/19 12:25

Sample Name: MW31-1119
Lab Code: R1910844-018

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/14/19 19:46	11/13/19	
Calcium, Total	6010C	53500	ug/L	1000	300	1	11/14/19 19:46	11/13/19	
Iron, Total	6010C	60 BJ	ug/L	100	20	1	11/14/19 19:46	11/13/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/14/19 19:46	11/13/19	
Magnesium, Total	6010C	12500	ug/L	1000	30	1	11/14/19 19:46	11/13/19	
Manganese, Total	6010C	10 U	ug/L	10	4	1	11/14/19 19:46	11/13/19	
Potassium, Total	6010C	1800 J	ug/L	2000	200	1	11/14/19 19:46	11/13/19	
Sodium, Total	6010C	11600	ug/L	1000	200	1	11/14/19 19:46	11/13/19	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: MW40-1119
Lab Code: R1910844-019

Service Request: R1910844
Date Collected: 11/07/19 12:10
Date Received: 11/08/19 12:25
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/14/19 19:49	11/13/19	
Calcium, Total	6010C	48400	ug/L	1000	300	1	11/14/19 19:49	11/13/19	
Iron, Total	6010C	240 B	ug/L	100	20	1	11/14/19 19:49	11/13/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/14/19 19:49	11/13/19	
Magnesium, Total	6010C	27400	ug/L	1000	30	1	11/14/19 19:49	11/13/19	
Manganese, Total	6010C	6 J	ug/L	10	4	1	11/14/19 19:49	11/13/19	
Potassium, Total	6010C	2900	ug/L	2000	200	1	11/14/19 19:49	11/13/19	
Sodium, Total	6010C	9500	ug/L	1000	200	1	11/14/19 19:49	11/13/19	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Collected: 11/07/19 13:30
Date Received: 11/08/19 12:25

Sample Name: DB1-1119
Lab Code: R1910844-022

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/14/19 19:52	11/13/19	
Calcium, Total	6010C	30600	ug/L	1000	300	1	11/14/19 19:52	11/13/19	
Iron, Total	6010C	8950	ug/L	100	20	1	11/14/19 19:52	11/13/19	
Lead, Total	6010C	5 J	ug/L	50	3	1	11/14/19 19:52	11/13/19	
Magnesium, Total	6010C	6400	ug/L	1000	30	1	11/14/19 19:52	11/13/19	
Manganese, Total	6010C	221	ug/L	10	4	1	11/14/19 19:52	11/13/19	
Potassium, Total	6010C	7600	ug/L	2000	200	1	11/14/19 19:52	11/13/19	
Sodium, Total	6010C	3200	ug/L	1000	200	1	11/14/19 19:52	11/13/19	



General Chemistry

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: MW26-1119
Lab Code: R1910844-001

Service Request: R1910844
Date Collected: 11/05/19 08:10
Date Received: 11/06/19 11:45
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	379	mg/L	2.0	1.8	1	11/08/19 13:44	NA	
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.003	1	11/08/19 21:47	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/06/19 12:55	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/06/19 19:21	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	8.0	mg/L	1.0	0.5	1	11/09/19 18:46	NA	
Chemical Oxygen Demand, Total	410.4	23.2	mg/L	5.0	3.8	1	11/12/19 07:00	NA	
Chloride	9056A	99.5	mg/L	2.0	0.5	10	11/06/19 19:21	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	588	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	0.7 J	mg/L	1.0	0.2	10	11/06/19 19:21	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.45	mg/L	0.20	0.10	1	11/08/19 13:05	11/07/19	
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.0010	1	11/18/19 20:46	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	804	mg/L	10	9	1	11/08/19 08:10	NA	
Sulfate	9056A	165	mg/L	4.0	0.8	20	11/07/19 19:48	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: MW14-1119
Lab Code: R1910844-002

Service Request: R1910844
Date Collected: 11/05/19 08:45
Date Received: 11/06/19 11:45
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	139	mg/L	2.0	1.8	1	11/08/19 13:49	NA	
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.003	1	11/08/19 21:49	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/06/19 12:56	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/06/19 19:27	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	0.5	1	11/09/19 19:06	NA	
Chemical Oxygen Demand, Total	410.4	3.9 J	mg/L	5.0	3.8	1	11/12/19 07:00	NA	
Chloride	9056A	2.7	mg/L	2.0	0.5	10	11/06/19 19:27	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	152	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	0.2	10	11/06/19 19:27	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20 U	mg/L	0.20	0.10	1	11/08/19 13:06	11/07/19	
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.0010	1	11/18/19 20:50	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	193	mg/L	10	9	1	11/08/19 08:10	NA	
Sulfate	9056A	19.8	mg/L	2.0	0.4	10	11/06/19 19:27	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: MW40A-1119
Lab Code: R1910844-003

Service Request: R1910844
Date Collected: 11/05/19 09:10
Date Received: 11/06/19 11:45
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Ammonia as Nitrogen, undistilled	350.1	0.006 J	mg/L	0.050	0.003	1	11/08/19 21:50	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/06/19 19:33	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 J	mg/L	1.0	0.5	1	11/09/19 19:27	NA	
Chemical Oxygen Demand, Total	410.4	4.2 J	mg/L	5.0	3.8	1	11/12/19 07:00	NA	
Chloride	9056A	3.6	mg/L	2.0	0.5	10	11/06/19 19:33	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	1400	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	0.3 J	mg/L	1.0	0.2	10	11/06/19 19:33	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.22	mg/L	0.20	0.10	1	11/08/19 13:07	11/07/19	
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.0010	1	11/18/19 21:02	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	2000	mg/L	10	9	1	11/08/19 08:10	NA	
Sulfate	9056A	1180	mg/L	40	8	200	11/07/19 19:54	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: MW41A-1119
Lab Code: R1910844-004

Service Request: R1910844
Date Collected: 11/05/19 09:35
Date Received: 11/06/19 11:45
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	365	mg/L	2.0	1.8	1	11/08/19 13:55	NA	
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.003	1	11/08/19 21:54	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/07/19 06:32	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/06/19 19:39	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	2.1	mg/L	1.0	0.5	1	11/09/19 20:30	NA	
Chemical Oxygen Demand, Total	410.4	7.7	mg/L	5.0	3.8	1	11/12/19 07:00	NA	
Chloride	9056A	3.4	mg/L	2.0	0.5	10	11/06/19 19:39	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	2420	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	0.6 J	mg/L	1.0	0.2	10	11/06/19 19:39	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.11 J	mg/L	0.20	0.10	1	11/08/19 13:11	11/07/19	
Phenolics, Total Recoverable	9066	0.0012 J	mg/L	0.0050	0.0010	1	11/18/19 21:06	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	3610	mg/L	20	18	1	11/08/19 08:10	NA	
Sulfate	9056A	2330	mg/L	80	16	400	11/07/19 20:00	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: MW42A-1119
Lab Code: R1910844-005

Service Request: R1910844
Date Collected: 11/05/19 10:05
Date Received: 11/06/19 11:45
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	364	mg/L	2.0	1.8	1	11/08/19 14:09	NA	
Ammonia as Nitrogen, undistilled	350.1	0.050	U mg/L	0.050	0.003	1	11/08/19 21:55	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.1	mg/L	1.0	0.5	1	11/09/19 20:51	NA	
Chemical Oxygen Demand, Total	410.4	4.2 J	mg/L	5.0	3.8	1	11/12/19 07:00	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	2080	mg/L	6.62	-	1	NA	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.18 J	mg/L	0.20	0.10	1	11/08/19 13:12	11/07/19	
Phenolics, Total Recoverable	9066	0.0050	U mg/L	0.0050	0.0010	1	11/18/19 21:10	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: MW45A-1119
Lab Code: R1910844-006

Service Request: R1910844
Date Collected: 11/05/19 10:30
Date Received: 11/06/19 11:45
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	232	mg/L	2.0	1.8	1	11/08/19 14:14	NA	
Ammonia as Nitrogen, undistilled	350.1	0.262	mg/L	0.050	0.003	1	11/08/19 21:56	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	14.6	mg/L	2.0	-	1	11/07/19 06:31	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/06/19 19:45	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	15.9	mg/L	1.0	0.5	1	11/09/19 21:12	NA	
Chemical Oxygen Demand, Total	410.4	47.7	mg/L	5.0	3.8	1	11/12/19 07:00	NA	
Chloride	9056A	12.6	mg/L	2.0	0.5	10	11/06/19 19:45	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	658	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	0.4 J	mg/L	1.0	0.2	10	11/06/19 19:45	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.44	mg/L	0.20	0.10	1	11/08/19 13:12	11/07/19	
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.0010	1	11/18/19 21:15	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	1110	mg/L	10	9	1	11/08/19 08:10	NA	
Sulfate	9056A	572	mg/L	20	4	100	11/07/19 20:06	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: MW34A-1119
Lab Code: R1910844-007

Service Request: R1910844
Date Collected: 11/05/19 11:00
Date Received: 11/06/19 11:45
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	224	mg/L	2.0	1.8	1	11/08/19 14:20	NA	
Ammonia as Nitrogen, undistilled	350.1	0.182	mg/L	0.050	0.003	1	11/08/19 21:58	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.4	mg/L	2.0	-	1	11/07/19 06:31	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/06/19 19:51	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	3.7	mg/L	1.0	0.5	1	11/09/19 21:33	NA	
Chemical Oxygen Demand, Total	410.4	12.2	mg/L	5.0	3.8	1	11/12/19 07:00	NA	
Chloride	9056A	2.7	mg/L	2.0	0.5	10	11/06/19 19:51	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	1300	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	0.4 J	mg/L	1.0	0.2	10	11/06/19 19:51	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.32	mg/L	0.20	0.10	1	11/08/19 13:13	11/07/19	
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.0010	1	11/18/19 21:19	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	2050	mg/L	20	18	1	11/08/19 08:10	NA	
Sulfate	9056A	1350	mg/L	60	12	300	11/07/19 20:12	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: MW37A-1119
Lab Code: R1910844-008

Service Request: R1910844
Date Collected: 11/05/19 11:35
Date Received: 11/06/19 11:45
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	353	mg/L	2.0	1.8	1	11/08/19 14:25	NA	
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.003	1	11/08/19 21:59	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/07/19 06:30	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/06/19 19:57	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.1	mg/L	1.0	0.5	1	11/09/19 21:54	NA	
Chemical Oxygen Demand, Total	410.4	6.3	mg/L	5.0	3.8	1	11/12/19 07:00	NA	
Chloride	9056A	1.7 J	mg/L	2.0	0.5	10	11/06/19 19:57	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	894	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	0.2	10	11/06/19 19:57	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20 U	mg/L	0.20	0.10	1	11/08/19 13:14	11/07/19	
Phenolics, Total Recoverable	9066	0.0011 BJ	mg/L	0.0050	0.0010	1	11/18/19 21:42	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	1270	mg/L	10	9	1	11/08/19 08:10	NA	
Sulfate	9056A	639	mg/L	20	4	100	11/07/19 20:18	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: MW36A-1119
Lab Code: R1910844-009

Service Request: R1910844
Date Collected: 11/05/19 12:05
Date Received: 11/06/19 11:45
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	406	mg/L	2.0	1.8	1	11/08/19 14:31	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	2.0	mg/L	1.0	0.5	1	11/09/19 22:15	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	2000	mg/L	6.62	-	1	NA	
Phenolics, Total Recoverable	9066	0.0015 BJ	mg/L	0.0050	0.0010	1	11/18/19 21:46	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: GSS2GH-1119
Lab Code: R1910844-010

Service Request: R1910844
Date Collected: 11/05/19 13:25
Date Received: 11/06/19 11:45
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	340	mg/L	2.0	1.8	1	11/08/19 14:36	NA	
Ammonia as Nitrogen, undistilled	350.1	0.246	mg/L	0.050	0.003	1	11/08/19 22:00	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/07/19 06:31	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/06/19 20:15	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	2.8	mg/L	1.0	0.5	1	11/09/19 22:35	NA	
Chemical Oxygen Demand, Total	410.4	10.5	mg/L	5.0	3.8	1	11/12/19 07:00	NA	
Chloride	9056A	7.6	mg/L	2.0	0.5	10	11/06/19 20:15	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	784	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	1.4	mg/L	1.0	0.2	10	11/06/19 20:15	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.40	mg/L	0.20	0.10	1	11/08/19 13:15	11/07/19	
Phenolics, Total Recoverable	9066	0.0013 BJ	mg/L	0.0050	0.0010	1	11/18/19 21:50	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	1090	mg/L	10	9	1	11/08/19 08:10	NA	
Sulfate	9056A	494	mg/L	20	4	100	11/07/19 20:24	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: GSS1-1119
Lab Code: R1910844-011

Service Request: R1910844
Date Collected: 11/05/19 14:15
Date Received: 11/06/19 11:45
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	146	mg/L	2.0	1.8	1	11/08/19 14:42	NA	
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.003	1	11/08/19 22:01	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/07/19 06:29	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/06/19 20:33	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	2.5	mg/L	1.0	0.5	1	11/09/19 22:56	NA	
Chemical Oxygen Demand, Total	410.4	11.5	mg/L	5.0	3.8	1	11/12/19 07:00	NA	
Chloride	9056A	9.1	mg/L	2.0	0.5	10	11/06/19 20:33	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	180	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	0.5 J	mg/L	1.0	0.2	10	11/06/19 20:33	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.10 J	mg/L	0.20	0.10	1	11/08/19 13:15	11/07/19	
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.0010	1	11/18/19 21:54	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	243	mg/L	10	9	1	11/08/19 08:10	NA	
Sulfate	9056A	36.0	mg/L	2.0	0.4	10	11/06/19 20:33	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: MW19-1119
Lab Code: R1910844-012

Service Request: R1910844
Date Collected: 11/06/19 09:05
Date Received: 11/07/19 12:15
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	217	mg/L	2.0	1.8	1	11/12/19 23:53	NA	
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.003	1	11/12/19 16:20	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/08/19 06:04	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/08/19 00:04	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.2	mg/L	1.0	0.5	1	11/09/19 23:17	NA	
Chemical Oxygen Demand, Total	410.4	5.0 U	mg/L	5.0	3.8	1	11/12/19 07:00	NA	
Chloride	9056A	23.5	mg/L	2.0	0.5	10	11/08/19 00:04	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	260	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	0.7 J	mg/L	1.0	0.2	10	11/08/19 00:04	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20 U	mg/L	0.20	0.10	1	11/13/19 13:12	11/12/19	
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.0010	1	11/18/19 21:58	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	310	mg/L	11	10	1	11/09/19 09:30	NA	
Sulfate	9056A	29.4	mg/L	2.0	0.4	10	11/08/19 00:04	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: MW37-1119
Lab Code: R1910844-013

Service Request: R1910844
Date Collected: 11/06/19 11:40
Date Received: 11/07/19 12:15
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	213	mg/L	2.0	1.8	1	11/13/19 00:16	NA	
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.003	1	11/12/19 16:17	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/08/19 06:03	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/08/19 00:34	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	0.5	1	11/10/19 01:02	NA	
Chemical Oxygen Demand, Total	410.4	5.0 U	mg/L	5.0	3.8	1	11/12/19 07:00	NA	
Chloride	9056A	11.6	mg/L	2.0	0.5	10	11/08/19 00:34	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	261	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	0.2	10	11/08/19 00:34	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20 U	mg/L	0.20	0.10	1	11/13/19 13:17	11/12/19	
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.0010	1	11/18/19 22:10	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	307	mg/L	10	9	1	11/09/19 09:30	NA	
Sulfate	9056A	44.5	mg/L	2.0	0.4	10	11/08/19 00:34	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: MW47A-1119
Lab Code: R1910844-014

Service Request: R1910844
Date Collected: 11/06/19 13:25
Date Received: 11/07/19 12:15
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	246	mg/L	2.0	1.8	1	11/13/19 00:22	NA	
Ammonia as Nitrogen, undistilled	350.1	0.180	mg/L	0.050	0.003	1	11/12/19 16:18	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0	mg/L	2.0	-	1	11/08/19 06:03	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/08/19 00:40	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.6	mg/L	1.0	0.5	1	11/10/19 01:22	NA	
Chemical Oxygen Demand, Total	410.4	4.9 J	mg/L	5.0	3.8	1	11/12/19 07:00	NA	
Chloride	9056A	3.1	mg/L	2.0	0.5	10	11/08/19 00:40	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	819	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	0.4 J	mg/L	1.0	0.2	10	11/08/19 00:40	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.31	mg/L	0.20	0.10	1	11/13/19 13:18	11/12/19	
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.0010	1	11/18/19 22:14	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	1230	mg/L	11	10	1	11/09/19 09:30	NA	
Sulfate	9056A	703	mg/L	20	4	100	11/09/19 16:51	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: MW40A-1119
Lab Code: R1910844-015

Service Request: R1910844
Date Collected: 11/06/19 14:10
Date Received: 11/07/19 12:15
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	379	mg/L	2.0	1.8	1	11/13/19 00:28	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: MW42A-1119
Lab Code: R1910844-016

Service Request: R1910844
Date Collected: 11/06/19 14:25
Date Received: 11/07/19 12:15
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	1	11/08/19 06:02	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: EB1-1119
Lab Code: R1910844-017

Service Request: R1910844
Date Collected: 11/07/19 08:00
Date Received: 11/08/19 12:25

Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	2.4	mg/L	2.0	1.8	1	11/13/19 00:31	NA	
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.003	1	11/12/19 16:23	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/08/19 14:06	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/08/19 17:36	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	0.5	1	11/14/19 22:37	NA	
Chemical Oxygen Demand, Total	410.4	4.2 J	mg/L	5.0	3.8	1	11/12/19 07:00	NA	
Chloride	9056A	2.0 U	mg/L	2.0	0.5	10	11/08/19 17:36	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	6.62 U	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	0.2	10	11/08/19 17:36	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.71	mg/L	0.20	0.10	1	11/13/19 13:19	11/12/19	
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.0010	1	11/18/19 22:34	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	9 J	mg/L	10	9	1	11/13/19 15:20	NA	
Sulfate	9056A	2.0 U	mg/L	2.0	0.4	10	11/08/19 17:36	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: MW31-1119
Lab Code: R1910844-018

Service Request: R1910844
Date Collected: 11/07/19 10:10
Date Received: 11/08/19 12:25
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	91.2	mg/L	2.0	1.8	1	11/13/19 00:38	NA	
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.003	1	11/12/19 16:27	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/08/19 14:07	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/08/19 17:42	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	0.5	1	11/14/19 22:58	NA	
Chemical Oxygen Demand, Total	410.4	5.0 U	mg/L	5.0	3.8	1	11/12/19 07:00	NA	
Chloride	9056A	53.0	mg/L	2.0	0.5	10	11/08/19 17:42	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	185	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	0.6 J	mg/L	1.0	0.2	10	11/08/19 17:42	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20 U	mg/L	0.20	0.10	1	11/13/19 13:19	11/12/19	
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.0010	1	11/18/19 22:38	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	256	mg/L	10	9	1	11/13/19 15:20	NA	
Sulfate	9056A	56.2	mg/L	2.0	0.4	10	11/08/19 17:42	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: MW40-1119
Lab Code: R1910844-019

Service Request: R1910844
Date Collected: 11/07/19 12:10
Date Received: 11/08/19 12:25
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	187	mg/L	2.0	1.8	1	11/13/19 00:44	NA	
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.003	1	11/12/19 16:28	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/08/19 14:01	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/08/19 18:11	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	0.5	1	11/14/19 23:19	NA	
Chemical Oxygen Demand, Total	410.4	5.0 U	mg/L	5.0	3.8	1	11/12/19 07:00	NA	
Chloride	9056A	10.9	mg/L	2.0	0.5	10	11/08/19 18:11	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	234	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	0.2	10	11/08/19 18:11	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20 U	mg/L	0.20	0.10	1	11/13/19 13:20	11/12/19	
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.0010	1	11/18/19 22:43	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	284	mg/L	10	9	1	11/13/19 15:20	NA	
Sulfate	9056A	48.8	mg/L	2.0	0.4	10	11/08/19 18:11	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Collected: 11/07/19 12:35
Date Received: 11/08/19 12:25

Sample Name: MW42A-1119
Lab Code: R1910844-020

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Q
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/08/19 18:17	
Chloride	9056A	3.9	mg/L	2.0	0.5	10	11/08/19 18:17	
Nitrate as Nitrogen	9056A	0.4 J	mg/L	1.0	0.2	10	11/08/19 18:17	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	3170	mg/L	20	18	1	11/13/19 15:20	
Sulfate	9056A	1950	mg/L	60	12	300	11/10/19 00:31	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: MW36A-1119
Lab Code: R1910844-021

Service Request: R1910844
Date Collected: 11/07/19 13:10
Date Received: 11/08/19 12:25
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Ammonia as Nitrogen, undistilled	350.1	0.050	U mg/L	0.050	0.003	1	11/12/19 16:29	NA	
Bromide	9056A	1.0	U mg/L	1.0	0.4	10	11/08/19 18:23	NA	
Chemical Oxygen Demand, Total	410.4	6.7	mg/L	5.0	3.8	1	11/12/19 07:00	NA	
Chloride	9056A	3.0	mg/L	2.0	0.5	10	11/08/19 18:23	NA	
Nitrate as Nitrogen	9056A	1.0	U mg/L	1.0	0.2	10	11/08/19 18:23	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20	U mg/L	0.20	0.10	1	11/13/19 13:21	11/12/19	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	2990	mg/L	20	18	1	11/13/19 15:20	NA	
Sulfate	9056A	1800	mg/L	60	12	300	11/10/19 00:37	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: DB1-1119
Lab Code: R1910844-022

Service Request: R1910844
Date Collected: 11/07/19 13:30
Date Received: 11/08/19 12:25
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	76.4	mg/L	2.0	1.8	1	11/13/19 00:50	NA	
Ammonia as Nitrogen, undistilled	350.1	0.170	mg/L	0.050	0.003	1	11/12/19 16:30	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/08/19 17:06	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/08/19 18:29	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	2.8	mg/L	1.0	0.5	1	11/14/19 23:40	NA	
Chemical Oxygen Demand, Total	410.4	9.8	mg/L	5.0	3.8	1	11/12/19 07:00	NA	
Chloride	9056A	4.9	mg/L	2.0	0.5	10	11/08/19 18:29	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	103	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	0.6 J	mg/L	1.0	0.2	10	11/08/19 18:29	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.77	mg/L	0.20	0.10	1	11/13/19 13:22	11/12/19	
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.0010	1	11/18/19 22:47	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	203	mg/L	10	9	1	11/13/19 15:20	NA	
Sulfate	9056A	18.7	mg/L	2.0	0.4	10	11/08/19 18:29	NA	



QC Summary Forms

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Metals

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1910844-MB1

Service Request: R1910844
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/08/19 23:13	11/07/19	
Calcium, Total	6010C	1000 U	ug/L	1000	300	1	11/08/19 23:13	11/07/19	
Iron, Total	6010C	100 U	ug/L	100	20	1	11/08/19 23:13	11/07/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/08/19 23:13	11/07/19	
Magnesium, Total	6010C	1000 U	ug/L	1000	30	1	11/08/19 23:13	11/07/19	
Manganese, Total	6010C	10 U	ug/L	10	4	1	11/08/19 23:13	11/07/19	
Potassium, Total	6010C	2000 U	ug/L	2000	200	1	11/08/19 23:13	11/07/19	
Sodium, Total	6010C	1000 U	ug/L	1000	200	1	11/08/19 23:13	11/07/19	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1910844-MB2

Service Request: R1910844
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/12/19 15:03	11/11/19	
Calcium, Total	6010C	1000 U	ug/L	1000	300	1	11/12/19 15:03	11/11/19	
Iron, Total	6010C	100 U	ug/L	100	20	1	11/12/19 15:03	11/11/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/12/19 15:03	11/11/19	
Magnesium, Total	6010C	1000 U	ug/L	1000	30	1	11/12/19 15:03	11/11/19	
Manganese, Total	6010C	10 U	ug/L	10	4	1	11/12/19 15:03	11/11/19	
Potassium, Total	6010C	2000 U	ug/L	2000	200	1	11/12/19 15:03	11/11/19	
Sodium, Total	6010C	1000 U	ug/L	1000	200	1	11/12/19 15:03	11/11/19	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1910844-MB3

Service Request: R1910844
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/14/19 19:07	11/13/19	
Calcium, Total	6010C	1000 U	ug/L	1000	300	1	11/14/19 19:07	11/13/19	
Iron, Total	6010C	70 J	ug/L	100	20	1	11/14/19 19:07	11/13/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/14/19 19:07	11/13/19	
Magnesium, Total	6010C	1000 U	ug/L	1000	30	1	11/14/19 19:07	11/13/19	
Manganese, Total	6010C	10 U	ug/L	10	4	1	11/14/19 19:07	11/13/19	
Potassium, Total	6010C	2000 U	ug/L	2000	200	1	11/14/19 19:07	11/13/19	
Sodium, Total	6010C	1000 U	ug/L	1000	200	1	11/14/19 19:07	11/13/19	

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QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Collected: 11/06/19
Date Received: 11/07/19
Date Analyzed: 11/14/19

**Duplicate Matrix Spike Summary
Inorganic Parameters**

Sample Name: MW19-1119
Lab Code: R1910844-012

Units: ug/L
Basis: NA

Analyte Name	Method	Sample Result	Result	Matrix Spike R1910844-012MS		Duplicate Matrix Spike R1910844-012DMS		% Rec	Limits	RPD	RPD Limit
				Spike Amount	% Rec	Result	Spike Amount				
Cadmium, Total	6010C	5.0 U	50.3	50.0	101	49.9	50.0	100	75-125	<1	20
Calcium, Total	6010C	65700	69000	2000	164 #	68400	2000	136 #	75-125	<1	20
Iron, Total	6010C	430 B	1420	1000	99	1360	1000	93	75-125	4	20
Lead, Total	6010C	50 U	506	500	101	505	500	101	75-125	<1	20
Magnesium, Total	6010C	23200	25300	2000	102 #	25100	2000	96 #	75-125	<1	20
Manganese, Total	6010C	28	543	500	103	541	500	103	75-125	<1	20
Potassium, Total	6010C	3500	23700	20000	101	23600	20000	101	75-125	<1	20
Sodium, Total	6010C	16400	36500	20000	100	36300	20000	99	75-125	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844

Date Analyzed: 11/14/19

Lab Control Sample Summary
Inorganic Parameters

Units:ug/L

Basis:NA

Lab Control Sample
R1910844-LCS3

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Cadmium, Total	6010C	51.4	50.0	103	80-120
Calcium, Total	6010C	1740	2000	87	80-120
Iron, Total	6010C	1020	1000	102	80-120
Lead, Total	6010C	504	500	101	80-120
Magnesium, Total	6010C	1960	2000	98	80-120
Manganese, Total	6010C	509	500	102	80-120
Potassium, Total	6010C	19600	20000	98	80-120
Sodium, Total	6010C	20400	20000	102	80-120

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QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Analyzed: 11/08/19

Duplicate Lab Control Sample Summary
Inorganic Parameters

Units:ug/L
Basis:NA

Lab Control Sample
R1910844-LCS1

Duplicate Lab Control Sample
R1910844-DLCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Cadmium, Total	6010C	50.2	50.0	100	51.9	50.0	104	80-120	3	20
Calcium, Total	6010C	1700	2000	83	1700	2000	86	80-120	3	20
Iron, Total	6010C	940	1000	94	970	1000	97	80-120	3	20
Lead, Total	6010C	492	500	98	504	500	101	80-120	2	20
Magnesium, Total	6010C	1900	2000	94	1900	2000	97	80-120	3	20
Manganese, Total	6010C	488	500	98	504	500	101	80-120	3	20
Potassium, Total	6010C	18600	20000	93	19300	20000	96	80-120	3	20
Sodium, Total	6010C	19500	20000	97	20100	20000	101	80-120	3	20

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QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Analyzed: 11/12/19

Duplicate Lab Control Sample Summary
Inorganic Parameters

Units:ug/L
Basis:NA

Lab Control Sample
R1910844-LCS2

Duplicate Lab Control Sample
R1910844-DLCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Cadmium, Total	6010C	52.0	50.0	104	50.9	50.0	102	80-120	2	20
Calcium, Total	6010C	1800	2000	89	1800	2000	88	80-120	1	20
Iron, Total	6010C	980	1000	98	960	1000	96	80-120	1	20
Lead, Total	6010C	507	500	101	500	500	100	80-120	1	20
Magnesium, Total	6010C	1900	2000	97	1900	2000	95	80-120	2	20
Manganese, Total	6010C	505	500	101	498	500	100	80-120	1	20
Potassium, Total	6010C	19400	20000	97	19200	20000	96	80-120	1	20
Sodium, Total	6010C	20100	20000	100	19800	20000	99	80-120	1	20



General Chemistry

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1910844-MB1

Service Request: R1910844
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	2.0 U	mg/L	2.0	1.8	1	11/08/19 11:42	NA	
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.003	1	11/08/19 21:09	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/06/19 17:20	NA	
Bromide	9056A	0.10 U	mg/L	0.10	0.04	1	11/06/19 18:04	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	0.5	1	11/09/19 11:28	NA	
Chemical Oxygen Demand, Total	410.4	5.0 U	mg/L	5.0	3.8	1	11/12/19 07:00	NA	
Chloride	9056A	0.20 U	mg/L	0.20	0.05	1	11/06/19 18:04	NA	
Nitrate as Nitrogen	9056A	0.10 U	mg/L	0.10	0.02	1	11/06/19 18:04	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20 U	mg/L	0.20	0.1	1	11/08/19 12:57	11/07/19	
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.0010	1	11/18/19 18:38	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	10 U	mg/L	10	9	1	11/08/19 08:10	NA	
Sulfate	9056A	0.20 U	mg/L	0.20	0.04	1	11/06/19 18:04	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1910844-MB2

Service Request: R1910844
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	2.0 U	mg/L	2.0	1.8	1	11/12/19 21:38	NA	
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.003	1	11/08/19 21:52	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/07/19 14:32	NA	
Bromide	9056A	0.10 U	mg/L	0.10	0.04	1	11/07/19 23:11	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	0.5	1	11/14/19 17:03	NA	
Chemical Oxygen Demand, Total	410.4	5.0 U	mg/L	5.0	3.8	1	11/12/19 07:00	NA	
Chloride	9056A	0.20 U	mg/L	0.20	0.05	1	11/07/19 23:11	NA	
Nitrate as Nitrogen	9056A	0.10 U	mg/L	0.10	0.02	1	11/07/19 23:11	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20 U	mg/L	0.20	0.1	1	11/13/19 13:07	11/12/19	
Phenolics, Total Recoverable	9066	0.0019 J	mg/L	0.0050	0.0010	1	11/18/19 21:26	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	10 U	mg/L	10	9	1	11/09/19 09:30	NA	
Sulfate	9056A	0.20 U	mg/L	0.20	0.04	1	11/07/19 17:02	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1910844-MB3

Service Request: R1910844
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Q
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.003	1	11/12/19 15:45	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/08/19 13:22	
Bromide	9056A	0.10 U	mg/L	0.10	0.04	1	11/08/19 15:36	
Chloride	9056A	0.20 U	mg/L	0.20	0.05	1	11/08/19 15:36	
Nitrate as Nitrogen	9056A	0.10 U	mg/L	0.10	0.02	1	11/08/19 15:36	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	10 U	mg/L	10	9	1	11/13/19 15:20	
Sulfate	9056A	0.20 U	mg/L	0.20	0.04	1	11/07/19 23:11	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1910844-MB4

Service Request: R1910844
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Q
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.003	1	11/12/19 16:12	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/08/19 19:57	
Sulfate	9056A	0.20 U	mg/L	0.20	0.04	1	11/08/19 15:36	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1910844-MB5

Service Request: R1910844
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Q
Sulfate	9056A	0.20 U	mg/L	0.20	0.04	1	11/09/19 15:51	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1910844-MB6

Service Request: R1910844
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Sulfate	9056A	0.20 U	mg/L	0.20	0.04	1	11/09/19 21:50	

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QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Collected: 11/05/19
Date Received: 11/06/19
Date Analyzed: 11/18/19

Duplicate Matrix Spike Summary
Phenolics, Total Recoverable

Sample Name: MW14-1119
Lab Code: R1910844-002
Analysis Method: 9066

Units: mg/L
Basis: NA

Analyte Name	Sample Result	Matrix Spike R1910844-002MS			Duplicate Matrix Spike R1910844-002DMS			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Phenolics, Total Recoverable	0.0050 U	0.0393	0.0400	98	0.0396	0.0400	99	49-137	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request:R1910844
Date Collected:11/05/19
Date Received:11/06/19
Date Analyzed:11/6/19

**Duplicate Matrix Spike Summary
General Chemistry Parameters**

Sample Name: MW37A-1119
Lab Code: R1910844-008

Units:mg/L
Basis:NA

**Matrix Spike
R1910844-008MS**

**Duplicate Matrix Spike
R1910844-008DMS**

Analyte Name	Method	Sample Result	Result	Spike		Duplicate Matrix Spike		% Rec Limits	RPD	RPD Limit	
				Amount	% Rec	Result	Amount				% Rec
Bromide	9056A	1.0 U	10.1	10.0	101	10.1	10.0	101	80-120	<1	15
Chloride	9056A	1.7 J	21.7	20.0	100	21.7	20.0	100	80-120	<1	15
Nitrate as Nitrogen	9056A	1.0 U	10.3	10.0	103	10.3	10.0	103	80-120	<1	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request:R1910844
Date Collected:11/05/19
Date Received:11/06/19
Date Analyzed:11/8/19

Duplicate Matrix Spike Summary
General Chemistry Parameters

Sample Name: GSS1-1119
Lab Code: R1910844-011

Units:mg/L
Basis:NA

Matrix Spike
R1910844-011MS

Duplicate Matrix Spike
R1910844-011DMS

Analyte Name	Method	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Ammonia as Nitrogen, undistilled	350.1	0.050 U	0.240	0.250	96	0.239	0.250	96	90-110	<1	20
Nitrogen, Total Kjeldahl (TKN)	351.2	0.10 J	2.37	2.50	91	2.41	2.50	92	90-110	2	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Collected: 11/06/19
Date Received: 11/07/19
Date Analyzed: 11/08/19 - 11/18/19

**Duplicate Matrix Spike Summary
General Chemistry Parameters**

Sample Name: MW19-1119
Lab Code: R1910844-012

Units: mg/L
Basis: NA

Analyte Name	Method	Matrix Spike R1910844-012MS				Duplicate Matrix Spike R1910844-012DMS					
		Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Ammonia as Nitrogen, undistilled	350.1	0.050 U	0.220	0.250	88 *	0.220	0.250	88 *	90-110	<1	20
Bromide	9056A	1.0 U	10.5	10.0	105	10.2	10.0	102	80-120	2	15
Chloride	9056A	23.5	44.8	20.0	107	44.5	20.0	105	80-120	<1	15
Chemical Oxygen Demand, Total	410.4	5.0 U	21.7	25.0	87 *	25.7	25.0	103	90-110	17	20
Phenolics, Total Recoverable	9066	0.0050 U	0.0391	0.0400	98	0.0405	0.0400	101	49-137	3	20
Sulfate	9056A	29.4	50.2	20.0	104	49.9	20.0	103	80-120	<1	15
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20 U	2.40	2.50	96	2.37	2.50	95	90-110	1	20
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.2	12.2	10.0	110	10.9	10.0	98	48-135	11	20
Nitrate as Nitrogen	9056A	0.7 J	11.1	10.0	104	11.0	10.0	103	80-120	<1	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Collected: 11/07/19
Date Received: 11/08/19
Date Analyzed: 11/8/19

**Duplicate Matrix Spike Summary
General Chemistry Parameters**

Sample Name: MW31-1119
Lab Code: R1910844-018

Units: mg/L
Basis: NA

Analyte Name	Method	Sample Result	Result	Matrix Spike R1910844-018MS		Duplicate Matrix Spike R1910844-018DMS		% Rec	Limits	RPD	RPD Limit
				Spike Amount	% Rec	Result	Spike Amount				
Bromide	9056A	1.0 U	10.0	10.0	100	10.0	10.0	100	80-120	<1	15
Chloride	9056A	53.0	72.0	20.0	95	71.2	20.0	91	80-120	1	15
Sulfate	9056A	56.2	76.1	20.0	100	74.7	20.0	93	80-120	2	15
Nitrate as Nitrogen	9056A	0.6 J	10.5	10.0	99	10.5	10.0	99	80-120	<1	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Collected: 11/07/19
Date Received: 11/08/19
Date Analyzed: 11/12/19 - 11/13/19

Duplicate Matrix Spike Summary
General Chemistry Parameters

Sample Name: DB1-1119 **Units:** mg/L
Lab Code: R1910844-022 **Basis:** NA

Matrix Spike
R1910844-022MS

Duplicate Matrix Spike
R1910844-022DMS

Analyte Name	Method	Sample Result	Result	Spike		Duplicate Matrix Spike		% Rec	Limits	RPD	RPD Limit
				Amount	% Rec	Result	Amount				
Chemical Oxygen Demand, Total	410.4	9.8	30.3	25.0	82 *	29.1	25.0	77 *	90-110	4	20
Nitrogen, Total Kjeldahl (TKN)	351.2	0.77	3.14	2.50	95	3.15	2.50	95	90-110	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Collected: 11/05/19
Date Received: 11/06/19
Date Analyzed: 11/08/19

Replicate Sample Summary
General Chemistry Parameters

Sample Name: MW41A-1119
Lab Code: R1910844-004

Units: mg/L
Basis: NA

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>MRL</u>	<u>MDL</u>	<u>Sample Result</u>	<u>Duplicate Sample R1910844-004DUP Result</u>	<u>Average</u>	<u>RPD</u>	<u>RPD Limit</u>
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	20	18	3610	3590	3600	<1	10

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Collected: 11/05/19
Date Received: 11/06/19
Date Analyzed: 11/08/19

Replicate Sample Summary
General Chemistry Parameters

Sample Name: GSS1-1119
Lab Code: R1910844-011

Units: mg/L
Basis: NA

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>MRL</u>	<u>MDL</u>	<u>Sample Result</u>	<u>Duplicate Sample R1910844-011DUP Result</u>	<u>Average</u>	<u>RPD</u>	<u>RPD Limit</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	2.0	1.8	146	146	146	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Collected: 11/06/19
Date Received: 11/07/19
Date Analyzed: 11/08/19 - 11/13/19

Replicate Sample Summary
General Chemistry Parameters

Sample Name: MW19-1119
Lab Code: R1910844-012

Units: mg/L
Basis: NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate Sample R1910844-012DUP Result	Average	RPD	RPD Limit
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	2.0	1.8	217	217	217	<1	20
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0		2.0 U	2.0 U	NC	NC	20
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	11	10	310	310	310	<1	10

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Analyzed: 11/06/19 - 11/18/19

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R1910844-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Alkalinity, Total as CaCO ₃	SM 2320 B-1997(2011)	18.8	20.0	94	80-120
Ammonia as Nitrogen, undistilled	350.1	0.250	0.250	100	90-110
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	185	198	93	85-115
Bromide	9056A	1.00	1.00	100	80-120
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	10.6	10.0	106	80-121
Chemical Oxygen Demand, Total	410.4	54.4	50.0	109	90-110
Chloride	9056A	2.07	2.00	103	80-120
Nitrate as Nitrogen	9056A	1.02	1.00	102	80-120
Nitrogen, Total Kjeldahl (TKN)	351.2	2.35	2.50	94	90-110
Phenolics, Total Recoverable	9066	0.0393	0.0400	98	85-115
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	914	914	100	90-110
Sulfate	9056A	2.02	2.00	101	80-120

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Analyzed: 11/07/19 - 11/18/19

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R1910844-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	18.4	20.0	92	80-120
Ammonia as Nitrogen, undistilled	350.1	0.251	0.250	100	90-110
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	184	198	93	85-115
Bromide	9056A	1.01	1.00	101	80-120
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	10.3	10.0	103	80-121
Chemical Oxygen Demand, Total	410.4	54.9	50.0	110	90-110
Chloride	9056A	2.08	2.00	104	80-120
Nitrate as Nitrogen	9056A	1.03	1.00	103	80-120
Nitrogen, Total Kjeldahl (TKN)	351.2	2.30	2.50	92	90-110
Phenolics, Total Recoverable	9066	0.0390	0.0400	98	85-115
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	882	914	97	90-110
Sulfate	9056A	2.02	2.00	101	80-120

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Analyzed: 11/07/19 - 11/13/19

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R1910844-LCS3

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Ammonia as Nitrogen, undistilled	350.1	0.244	0.250	98	90-110
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	208	198	105	85-115
Bromide	9056A	1.02	1.00	102	80-120
Chloride	9056A	2.08	2.00	104	80-120
Nitrate as Nitrogen	9056A	1.03	1.00	103	80-120
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	922	914	101	90-110
Sulfate	9056A	2.06	2.00	103	80-120

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Analyzed: 11/08/19 - 11/12/19

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R1910844-LCS4

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Ammonia as Nitrogen, undistilled	350.1	0.247	0.250	99	90-110
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	193	198	97	85-115
Sulfate	9056A	2.02	2.00	101	80-120

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Analyzed: 11/09/19

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R1910844-LCS5

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Sulfate	9056A	2.02	2.00	101	80-120

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1910844
Date Analyzed: 11/09/19

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L

Basis:NA

Lab Control Sample

R1910844-LCS6

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Sulfate	9056A	2.01	2.00	101	80-120



November 20, 2019

Service Request No:R1910842

Russell Anderson
Casella Waste - Hyland
4 Chenell Drive
Suite 200
Concord, NH 03301

Laboratory Results for: Hyland Facility - Baseline Parameters

Dear Russell,

Enclosed are the results of the sample(s) submitted to our laboratory November 06, 2019
For your reference, these analyses have been assigned our service request number **R1910842**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Janice Jaeger
Project Manager

CC: Jon Brandes



Narrative Documents

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com



Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters
Sample Matrix: Water

Service Request: R1910842
Date Received: 11/06/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

One water sample was received for analysis at ALS Environmental on 11/06/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

General Chemistry:

Method 7196A: One or more samples were received with insufficient hold time remaining to complete the analysis within the recommended limit. The analysis was performed as soon as possible after receipt by the laboratory. The data is flagged to indicate the holding time exceedance.

Volatiles by GC/MS:

Method 8260C, 11/08/2019: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) above the MRL in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Method 8260C, 11/08/2019: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8260C, 11/08/2019: The Method Blank contained a low level of the following analytes above the Reporting Limit: acetone. All associated sample results less than ten times the level found in the Method Blank are flagged. The samples were not reprepared/reanalyzed because the vials used in sampling have acetone contamination. We are working with a new vendor to supply clean vials.

A handwritten signature in black ink, appearing to read "Samantha", is written over a horizontal line.

Approved by _____

Date 11/20/2019



Sample Receipt Information

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters

Service Request:R1910842

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1910842-001	GSS2EF-1119	11/5/2019	1245



ALS-Environmental
1565 Jefferson Rd, Bldg 300, Suite 360
Rochester, NY 14623
585.288.5380

Client: Casella/On-Site
6653 Herdman Road
Angelica, NY 14709
Project Manager Russ Anderson/Jon Brandes

CHAIN of CUSTODY
Project: Hyland Facility - Baseline Parameters
Telephone No. 585-593-1824
Email: jonb@on-sitehs.com

Page 1 of 1
Method of Shipment
UPS

Special Detection Limit/Reporting

PDF to Russ and On-Site, and EDD to On-Site.

Sample I.D.	Lab Sample No.	No. of Containers	Matrix				Prsv.		Sampling Date	Sampling Time	GC/MS VOC's 8260 (HCl)	BOD (NP)	T-Cn. (NaOH)	Alkalinity (NP)	Total Color (NP)	T-Metals (Baseline) (HNO3)	Hardness (HNO3)	TOC & Phenols (H2SO4)	TDS, Cr+6, NO3, Br, Cl, SO4 (NP)	NH3, TKN, COD (H2SO4)								
			Soil	Water	Air	Other	Yes	No																				
GSS2EF-1119		12						11-5-19	1245	X	X	X	X	X	X	X	X	X	X	X								

REMARKS

Sample Received Intact: Yes No Temperature received: Ice No ice

Relinq. by sampler (Sign & Print Name) <i>Kevin Dye / KEVIN DYE</i>	Date 11-5-19	Time 1530	Received by (Sign & Print Name)
Relinquished by	Date	Time	Received by
Relinquished by	Date	Time	Received by

Relinquished by	Date	Time	Received by laboratory <i>Shangzhe</i>	Date 11/6/19	Time 1145
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Lab Work No.

R1910842 5
Casella Waste - Hyland
Hyland Facility - Baseline Parameters



Cooler Receipt and Preservation Check Form

R1910842

5

Casella Waste - Hyland
Hyland Facility - Baseline Parameters



Project/Client Casella Folder Number _____

Cooler received on 11/6/19 by: [Signature]

COURIER: ALS (UPS) FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	<input checked="" type="radio"/> Y	<input type="radio"/> N
2	Custody papers properly completed (ink, signed)?	<input checked="" type="radio"/> Y	<input type="radio"/> N
3	Did all bottles arrive in good condition (unbroken)?	<input checked="" type="radio"/> Y	<input type="radio"/> N
4	Circle: <u>Wet Ice</u> Dry Ice Gel packs present?	<input checked="" type="radio"/> Y	<input type="radio"/> N

5a	Perchlorate samples have required headspace?	Y	N	<u>(NA)</u>
5b	Did <u>VOA</u> vials, <u>Alk</u> or Sulfide have sig* bubbles?	Y	<u>(N)</u>	NA
6	Where did the bottles originate?	<u>ALS/ROC</u>	CLIENT	
7	Soil VOA received as:	Bulk	Encore	5035set <u>(NA)</u>

3. Temperature Readings Date: 11/6/19 Time: 1212 ID: IR#7 (IR#10) From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>1.6</u>	<u>4.2</u>						
Within 0-6°C?	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	Y	N	Y	N	Y	N
If <0°C, were samples frozen?	Y	N	Y	N	Y	N	Y	N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule
& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by [Signature] on 11/6/19 at 1218
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 11/6/19 Time: 1920 by: [Signature]

- 9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
- 10. Did all bottle labels and tags agree with custody papers? YES NO
- 11. Were correct containers used for the tests indicated? YES NO
- 12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO
- 13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated (N/A)

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12	<u>22001K</u>	NaOH	<input checked="" type="checkbox"/>		<u>202153</u>	<u>9/20</u>				
≤2	<u>230</u>	HNO ₃	<input checked="" type="checkbox"/>		<u>1118081</u>					
≤2		H ₂ SO ₄	<input checked="" type="checkbox"/>		<u>202739</u>	<u>10/20</u>				
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		<u>For CN</u> Phenol 625, 608pest, 522	<input checked="" type="checkbox"/>		If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**	<u>J0050-11</u>					

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 19-09-03, 072219-10MC, 062619-0AAA, 00819-02

Explain all Discrepancies/ Other Comments: _____

HPROD	BULK
HTR	FLDT
SUB	HGFB
ALS	LL3541

Labels secondary reviewed by: [Signature]
PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



Miscellaneous Forms

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

REPORT QUALIFIERS AND DEFINITIONS

<p>U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p>J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).</p> <p>B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p>E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p>E Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p>D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p>* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p>H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p># Spike was diluted out.</p>	<p>+ Correlation coefficient for MSA is <0.995.</p> <p>N Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p>N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p>S Concentration has been determined using Method of Standard Additions (MSA).</p> <p>W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.</p> <p>P Concentration >40% difference between the two GC columns.</p> <p>C Confirmed by GC/MS</p> <p>Q DoD reports: indicates a pesticide/Aroclor is not confirmed (>100% Difference between two GC columns).</p> <p>X See Case Narrative for discussion.</p> <p>MRL Method Reporting Limit. Also known as:</p> <p>LOQ Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p>MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p>LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p>ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p>
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Rochester Lab ID # for State Certifications¹

Connecticut ID # PH0556	Maine ID #NY0032	Pennsylvania ID# 68-786
Delaware Approved	New Hampshire ID # 2941	Rhode Island ID # 158
DoD ELAP #65817	New York ID # 10145	Virginia #460167
Florida ID # E87674	North Carolina #676	

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

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Analyst Summary report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters/

Service Request: R1910842

Sample Name: GSS2EF-1119
Lab Code: R1910842-001
Sample Matrix: Water

Date Collected: 11/5/19
Date Received: 11/6/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		MROGERSON
351.2	MROGERSON	GNITAJOUPI
410.4		CWOODS
6010C	AKONZEL	NMANSEN
7196A		SMEDBURY
7470A	AKONZEL	KMCLAEN
8260C		AMOSSES
9056A		KWONG
9066		BBOWE
Kelada-01		CWOODS
SM 2120 B-2001(2011)		KAWONG
SM 2320 B-1997(2011)		STALARICO
SM 2540 C-1997(2011)		KAWONG
SM 5210 B-2001(2011)		KMENGS
SM 5310 C-2000(2011)		SMEDBURY



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.



Sample Results

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Volatile Organic Compounds by GC/MS

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters
Sample Matrix: Water

Service Request: R1910842
Date Collected: 11/05/19 12:45
Date Received: 11/06/19 11:45

Sample Name: GSS2EF-1119
Lab Code: R1910842-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	5.0 U	5.0	0.20	1	11/08/19 01:46	
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	11/08/19 01:46	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	11/08/19 01:46	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	11/08/19 01:46	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	11/08/19 01:46	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	11/08/19 01:46	
1,2,3-Trichloropropane	5.0 U	5.0	0.26	1	11/08/19 01:46	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	11/08/19 01:46	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	11/08/19 01:46	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	11/08/19 01:46	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	11/08/19 01:46	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	11/08/19 01:46	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	11/08/19 01:46	
2-Butanone (MEK)	10 U	10	0.78	1	11/08/19 01:46	
2-Hexanone	10 U	10	0.20	1	11/08/19 01:46	
4-Methyl-2-pentanone	0.49 J	10	0.20	1	11/08/19 01:46	
Acetone	5.1 BJ	10	2.1	1	11/08/19 01:46	
Acrylonitrile	100 U	100	0.90	1	11/08/19 01:46	
Benzene	5.0 U	5.0	0.20	1	11/08/19 01:46	
Bromochloromethane	5.0 U	5.0	0.24	1	11/08/19 01:46	
Bromodichloromethane	5.0 U	5.0	0.22	1	11/08/19 01:46	
Bromoform	5.0 U	5.0	0.25	1	11/08/19 01:46	
Bromomethane	5.0 U	5.0	0.70	1	11/08/19 01:46	
Carbon Disulfide	10 U	10	0.25	1	11/08/19 01:46	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	11/08/19 01:46	
Chlorobenzene	5.0 U	5.0	0.20	1	11/08/19 01:46	
Chloroethane	5.0 U	5.0	0.23	1	11/08/19 01:46	
Chloroform	5.0 U	5.0	0.24	1	11/08/19 01:46	
Chloromethane	0.30 J	5.0	0.28	1	11/08/19 01:46	
Dibromochloromethane	5.0 U	5.0	0.20	1	11/08/19 01:46	
Dibromomethane	5.0 U	5.0	0.20	1	11/08/19 01:46	
Methylene Chloride	5.0 U	5.0	0.36	1	11/08/19 01:46	
Ethylbenzene	5.0 U	5.0	0.20	1	11/08/19 01:46	
Iodomethane	10 U	10	1.2	1	11/08/19 01:46	
Styrene	5.0 U	5.0	0.20	1	11/08/19 01:46	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	11/08/19 01:46	
Toluene	5.0 U	5.0	0.20	1	11/08/19 01:46	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	11/08/19 01:46	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.24	1	11/08/19 01:46	
Vinyl Acetate	10 U	10	1.1	1	11/08/19 01:46	
Vinyl Chloride	5.0 U	5.0	0.20	1	11/08/19 01:46	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	11/08/19 01:46	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	11/08/19 01:46	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters
Sample Matrix: Water

Service Request: R1910842
Date Collected: 11/05/19 12:45
Date Received: 11/06/19 11:45

Sample Name: GSS2EF-1119
Lab Code: R1910842-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
m,p-Xylenes	5.0 U	5.0	0.20	1	11/08/19 01:46	
o-Xylene	5.0 U	5.0	0.20	1	11/08/19 01:46	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	11/08/19 01:46	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	11/08/19 01:46	
trans-1,4-Dichloro-2-butene	5.0 U	5.0	0.78	1	11/08/19 01:46	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	11/08/19 01:46	
Dibromofluoromethane	100	89 - 119	11/08/19 01:46	
Toluene-d8	100	87 - 121	11/08/19 01:46	



Metals

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METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client:	Casella Waste Systems (Hampden M	Service Request:	GSS2EF-1119
Project No.:	R1910842	Date Collected:	11/5/2019
Project Name:		Date Received:	11/6/2019
Matrix:	WATER	Units:	ug/L
		Basis:	

Sample Name:	GSS2EF-1119	Lab Code:	R1910842-001
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Analyte	Analysis Method	PQL	MDL	Dil. Factor	Result	C	Q
Aluminum	6010C	100	23.0	1.0	41.7	J	
Antimony	6010C	60.0	4.7	1.0	60.0	U	
Arsenic	6010C	10.0	3.9	1.0	10.0	U	
Barium	6010C	20.0	3.0	1.0	60.1		
Beryllium	6010C	3.0	0.130	1.0	3.0	U	
Boron	6010C	200	12.0	1.0	53.5	J	
Cadmium	6010C	5.0	0.350	1.0	5.0	U	
Mercury	7470A	0.200	0.077	1.0	0.200	U	
Calcium	6010C	1000	220	1.0	83900		
Chromium	6010C	10.0	0.590	1.0	10.0	U	
Cobalt	6010C	50.0	0.890	1.0	50.0	U	
Copper	6010C	20.0	3.9	1.0	20.0	U	
Iron	6010C	100	18.0	1.0	109		
Lead	6010C	50.0	2.1	1.0	50.0	U	
Magnesium	6010C	1000	29.0	1.0	23700		
Manganese	6010C	10.0	3.7	1.0	796		
Nickel	6010C	40.0	2.6	1.0	40.0	U	
Potassium	6010C	2000	200	1.0	3360		
Selenium	6010C	10.0	4.6	1.0	10.0	U	
Silver	6010C	10.0	0.570	1.0	10.0	U	
Sodium	6010C	1000	130	1.0	7390		
Thallium	6010C	10.0	6.6	1.0	10.0	U	
Vanadium	6010C	50.0	0.670	1.0	50.0	U	
Zinc	6010C	20.0	9.4	1.0	20.0	U	

% Solids: 0.0

Comments:



General Chemistry

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters
Sample Matrix: Water
Sample Name: GSS2EF-1119
Lab Code: R1910842-001

Service Request: R1910842
Date Collected: 11/05/19 12:45
Date Received: 11/06/19 11:45

Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	224	mg/L	2.0	1.8	1	11/08/19 13:38	NA	
Ammonia as Nitrogen, undistilled	350.1	0.063	mg/L	0.050	0.003	1	11/08/19 21:46	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/07/19 06:32	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/06/19 18:51	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.8	mg/L	1.0	0.5	1	11/14/19 07:21	NA	
Chemical Oxygen Demand, Total	410.4	5.0 U	mg/L	5.0	3.8	1	11/10/19 14:47	NA	
Chloride	9056A	5.8	mg/L	2.0	0.5	10	11/06/19 18:51	NA	
Chromium, Hexavalent	7196A	0.010 U	mg/L	0.010	0.003	1	11/06/19 20:31	NA	*
Color, True	SM 2120 B-2001(2011)	15.0	ColorUnits	1.0	-	1	11/07/19 07:00	NA	
Cyanide, Total	Kelada-01	0.0050 U	mg/L	0.0050	0.0040	1	11/13/19 18:44	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	307	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	0.2	10	11/06/19 18:51	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.15 J	mg/L	0.20	0.10	1	11/08/19 13:05	11/07/19	
pH of Color Analysis	SM 2120 B-2001(2011)	7.63	pH Units	-	-	1	11/08/19 14:40	NA	*
Phenolics, Total Recoverable	9066	0.0010 J	mg/L	0.0050	0.0010	1	11/12/19 00:04	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	390	mg/L	10	9	1	11/08/19 08:10	NA	
Sulfate	9056A	87.7	mg/L	2.0	0.4	10	11/06/19 18:51	NA	



QC Summary Forms

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Volatile Organic Compounds by GC/MS

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QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters
Sample Matrix: Water

Service Request: R1910842

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		85-122	89-119	87-121
GSS2EF-1119	R1910842-001	95	100	100
Method Blank	RQ1913026-06	95	102	98
Lab Control Sample	RQ1913026-05	97	99	100

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters
Sample Matrix: Water

Service Request: R1910842
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1913026-06

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	5.0 U	5.0	0.20	1	11/08/19 01:03	
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	11/08/19 01:03	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	11/08/19 01:03	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	11/08/19 01:03	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	11/08/19 01:03	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	11/08/19 01:03	
1,2,3-Trichloropropane	5.0 U	5.0	0.26	1	11/08/19 01:03	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	11/08/19 01:03	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	11/08/19 01:03	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	11/08/19 01:03	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	11/08/19 01:03	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	11/08/19 01:03	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	11/08/19 01:03	
2-Butanone (MEK)	10 U	10	0.78	1	11/08/19 01:03	
2-Hexanone	10 U	10	0.20	1	11/08/19 01:03	
4-Methyl-2-pentanone	10 U	10	0.20	1	11/08/19 01:03	
Acetone	7.9 J	10	2.1	1	11/08/19 01:03	
Acrylonitrile	100 U	100	0.90	1	11/08/19 01:03	
Benzene	5.0 U	5.0	0.20	1	11/08/19 01:03	
Bromochloromethane	5.0 U	5.0	0.24	1	11/08/19 01:03	
Bromodichloromethane	5.0 U	5.0	0.22	1	11/08/19 01:03	
Bromoform	5.0 U	5.0	0.25	1	11/08/19 01:03	
Bromomethane	5.0 U	5.0	0.70	1	11/08/19 01:03	
Carbon Disulfide	10 U	10	0.25	1	11/08/19 01:03	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	11/08/19 01:03	
Chlorobenzene	5.0 U	5.0	0.20	1	11/08/19 01:03	
Chloroethane	5.0 U	5.0	0.23	1	11/08/19 01:03	
Chloroform	5.0 U	5.0	0.24	1	11/08/19 01:03	
Chloromethane	5.0 U	5.0	0.28	1	11/08/19 01:03	
Dibromochloromethane	5.0 U	5.0	0.20	1	11/08/19 01:03	
Dibromomethane	5.0 U	5.0	0.20	1	11/08/19 01:03	
Methylene Chloride	5.0 U	5.0	0.36	1	11/08/19 01:03	
Ethylbenzene	5.0 U	5.0	0.20	1	11/08/19 01:03	
Iodomethane	10 U	10	1.2	1	11/08/19 01:03	
Styrene	5.0 U	5.0	0.20	1	11/08/19 01:03	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	11/08/19 01:03	
Toluene	5.0 U	5.0	0.20	1	11/08/19 01:03	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	11/08/19 01:03	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.24	1	11/08/19 01:03	
Vinyl Acetate	10 U	10	1.1	1	11/08/19 01:03	
Vinyl Chloride	5.0 U	5.0	0.20	1	11/08/19 01:03	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	11/08/19 01:03	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	11/08/19 01:03	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters
Sample Matrix: Water

Service Request: R1910842
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1913026-06

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
m,p-Xylenes	5.0 U	5.0	0.20	1	11/08/19 01:03	
o-Xylene	5.0 U	5.0	0.20	1	11/08/19 01:03	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	11/08/19 01:03	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	11/08/19 01:03	
trans-1,4-Dichloro-2-butene	5.0 U	5.0	0.78	1	11/08/19 01:03	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	11/08/19 01:03	
Dibromofluoromethane	102	89 - 119	11/08/19 01:03	
Toluene-d8	98	87 - 121	11/08/19 01:03	

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QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters
Sample Matrix: Water

Service Request: R1910842
Date Analyzed: 11/07/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1913026-05

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	8260C	19.6	20.0	98	76-129
1,1,1-Trichloroethane (TCA)	8260C	18.7	20.0	94	75-125
1,1,2,2-Tetrachloroethane	8260C	17.9	20.0	90	78-126
1,1,2-Trichloroethane	8260C	18.2	20.0	91	82-121
1,1-Dichloroethane (1,1-DCA)	8260C	17.8	20.0	89	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	18.1	20.0	90	71-118
1,2,3-Trichloropropane	8260C	16.3	20.0	81	75-118
1,2-Dibromo-3-chloropropane (DBCP)	8260C	19.5	20.0	98	55-136
1,2-Dibromoethane	8260C	19.3	20.0	96	82-127
1,2-Dichlorobenzene	8260C	18.0	20.0	90	80-119
1,2-Dichloroethane	8260C	16.5	20.0	82	71-127
1,2-Dichloropropane	8260C	17.2	20.0	86	80-119
1,4-Dichlorobenzene	8260C	17.6	20.0	88	79-119
2-Butanone (MEK)	8260C	15.5	20.0	77	61-137
2-Hexanone	8260C	16.3	20.0	81	63-124
4-Methyl-2-pentanone	8260C	16.1	20.0	80	66-124
Acetone	8260C	17.2	20.0	86	40-161
Acrylonitrile	8260C	83.1 J	100	83	71-130
Benzene	8260C	17.3	20.0	87	79-119
Bromochloromethane	8260C	18.3	20.0	91	81-126
Bromodichloromethane	8260C	18.1	20.0	91	81-123
Bromoform	8260C	19.6	20.0	98	65-146
Bromomethane	8260C	20.8	20.0	104	42-166
Carbon Disulfide	8260C	21.7	20.0	109	66-128
Carbon Tetrachloride	8260C	22.5	20.0	113	70-127
Chlorobenzene	8260C	18.7	20.0	93	80-121
Chloroethane	8260C	16.9	20.0	84	62-131
Chloroform	8260C	17.4	20.0	87	79-120
Chloromethane	8260C	17.5	20.0	87	65-135
Dibromochloromethane	8260C	19.5	20.0	98	72-128
Dibromomethane	8260C	17.5	20.0	88	80-118
Methylene Chloride	8260C	16.4	20.0	82	73-122
Ethylbenzene	8260C	18.0	20.0	90	76-120

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters
Sample Matrix: Water

Service Request: R1910842
Date Analyzed: 11/07/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1913026-05

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Iodomethane	8260C	18.4	20.0	92	18-160
Styrene	8260C	18.0	20.0	90	80-124
Tetrachloroethene (PCE)	8260C	16.5	20.0	82	72-125
Toluene	8260C	17.9	20.0	90	79-119
Trichloroethene (TCE)	8260C	15.9	20.0	80	74-122
Trichlorofluoromethane (CFC 11)	8260C	18.6	20.0	93	71-136
Vinyl Acetate	8260C	20.9	20.0	105	52-174
Vinyl Chloride	8260C	17.9	20.0	90	74-159
cis-1,2-Dichloroethene	8260C	19.1	20.0	96	80-121
cis-1,3-Dichloropropene	8260C	17.8	20.0	89	77-122
m,p-Xylenes	8260C	36.5	40.0	91	80-126
o-Xylene	8260C	18.6	20.0	93	79-123
trans-1,2-Dichloroethene	8260C	17.4	20.0	87	73-118
trans-1,3-Dichloropropene	8260C	19.5	20.0	98	71-133
trans-1,4-Dichloro-2-butene	8260C	15.1	20.0	75	39-137



Metals

ALS Environmental—Rochester Laboratory
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Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

METALS

-3-

BLANKS

Contract: R1910842

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: GSS2EF-1119

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	Continuing Calibration Blank ug/L						Preparation Blank		M
		1	C	2	C	3	C	C		
Aluminum	23.00 U	33.70 J		92.90 J		23.00 U		23.000 U	P	
Antimony	6.40 J	4.70 U		4.70 U		4.70 U		4.700 U	P	
Arsenic	3.90 U	3.90 U		3.90 U		3.90 U		3.900 U	P	
Barium	7.00 J	6.00 J		3.20 J		5.30 J		-5.100 J	P	
Beryllium	0.13 U	0.13 U		0.20 J		0.13 U		0.130 U	P	
Boron	12.00 U	12.00 U		12.00 U		12.00 U		12.000 U	P	
Cadmium	0.35 U	0.35 U		0.50 J		0.35 U		-0.500 J	P	
Mercury	0.077 U	0.077 U		0.077 U		0.077 U		0.077 U	CV	
Calcium	220.00 U	220.00 U		220.00 U		220.00 U		220.000 U	P	
Chromium	0.59 U	0.59 U		0.59 U		0.59 U		0.590 U	P	
Cobalt	1.60 J	2.00 J		0.90 J		1.50 J		0.890 U	P	
Copper	3.90 U	3.90 U		3.90 U		3.90 U		3.900 U	P	
Iron	18.00 U	29.90 J		47.70 J		18.00 U		18.000 U	P	
Lead	2.10 U	2.10 U		2.10 U		2.10 U		2.100 U	P	
Magnesium	29.00 U	29.00 U		115.20 J		29.70 J		29.000 U	P	
Manganese	3.70 U	3.70 U		3.70 U		3.70 U		3.700 U	P	
Nickel	2.60 U	2.60 U		2.60 U		2.60 U		2.600 U	P	
Potassium	200.00 U	200.00 U		200.00 U		200.00 U		200.000 U	P	
Selenium	4.60 U	4.60 U		4.60 U		4.60 U		4.600 U	P	
Silver	0.57 U	0.57 U		0.57 U		0.57 U		0.570 U	P	
Sodium	130.00 U	150.80 J		130.00 U		130.00 U		130.000 U	P	
Thallium	6.60 U	6.60 U		6.60 U		6.60 U		6.600 U	P	
Vanadium	1.30 J	1.50 J		0.67 U		1.10 J		-1.500 J	P	
Zinc	9.40 U	9.40 U		9.40 U		9.40 U		9.400 U	P	

Comments:

METALS

-3-

BLANKS

Contract: R1910842

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: GSS2EF-1119

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	Continuing Calibration Blank ug/L						Preparation Blank		M
		1	C	2	C	3	C	C		
Aluminum		23.00	U	23.00	U	87.60	J			P
Antimony		4.70	U	4.70	U	4.70	U			P
Arsenic		3.90	U	3.90	U	3.90	U			P
Barium		10.80	J	6.50	J	3.00	U			P
Beryllium		0.20	J	0.13	U	0.20	J			P
Boron		12.00	U	12.00	U	12.00	U			P
Cadmium		0.60	J	0.40	J	0.35	U			P
Mercury		0.077	U							CV
Calcium		220.00	U	220.00	U	220.00	U			P
Chromium		0.59	U	0.59	U	0.59	U			P
Cobalt		2.80	J	2.00	J	0.89	U			P
Copper		3.90	U	3.90	U	3.90	U			P
Iron		18.00	U	18.00	U	44.90	J			P
Lead		2.10	U	2.10	U	2.10	U			P
Magnesium		49.90	J	29.00	U	104.70	J			P
Manganese		3.70	U	3.70	U	3.70	U			P
Nickel		2.60	U	2.60	U	2.60	U			P
Potassium		200.00	U	200.00	U	200.00	U			P
Selenium		4.60	U	4.60	U	4.60	U			P
Silver		0.57	U	0.57	U	0.57	U			P
Sodium		158.90	J	130.00	U	130.00	U			P
Thallium		7.80	J	6.60	U	6.60	U			P
Vanadium		2.10	J	1.10	J	0.67	U			P
Zinc		9.40	U	9.40	U	9.40	U			P

Comments:

METALS

-5A-

SPIKE SAMPLE RECOVERY

SAMPLE NO.

GSS2EF-1119S

Contract: R1910842

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: GSS2EF-1119

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 100.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Mercury	75 - 125	0.933	0.077 U	1.00	93		CV

Comments:

METALS

-5A-

SPIKE SAMPLE RECOVERY

SAMPLE NO.

GSS2EF-1119SD

Contract: R1910842

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: GSS2EF-1119

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 100.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Mercury	75 - 125	0.936	0.077 U	1.00	94		CV

Comments:

METALS
-6-
DUPLICATES

SAMPLE NO.

GSS2EF-1119SD

Contract: R1910842

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: GSS2EF-1119

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 100.0 % Solids for Duplicate: 100.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S) C	Duplicate (D) C	RPD	Q	M
Mercury		0.933	0.936	0		CV

Comments: _____

METALS

-7-

LABORATORY CONTROL SAMPLE

Contract: R1910842

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: GSS2EF-1119

Solid LCS Source: _____

Aqueous LCS Source: CPI

Analyte	Aqueous (ug/L)			Solid (mg/K)				
	True	Found	%R	True	Found	C	Limits	%R
Aluminum	2000	1810	90					
Antimony	500	472	94					
Arsenic	40	40	100					
Barium	2000	2100	105					
Beryllium	50	51	102					
Boron	1000	998	100					
Cadmium	50	52	104					
Mercury	1.000	1.010	101					
Calcium	2000	1710	86					
Chromium	200	205	102					
Cobalt	500	514	103					
Copper	250	233	93					
Iron	1000	973	97					
Lead	500	506	101					
Magnesium	2000	1940	97					
Manganese	500	503	101					
Nickel	500	505	101					
Potassium	20000	19300	96					
Selenium	1010	1070	106					
Silver	50	48	96					
Sodium	20000	20100	100					
Thallium	2000	1850	92					
Vanadium	500	500	100					
Zinc	500	510	102					

Comments: _____



General Chemistry

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www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1910842-MB

Service Request: R1910842
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	2.0 U	mg/L	2.0	1.8	1	11/08/19 11:42	NA	
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.003	1	11/08/19 21:09	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/07/19 14:32	NA	
Bromide	9056A	0.10 U	mg/L	0.10	0.04	1	11/06/19 18:04	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	0.5	1	11/14/19 00:44	NA	
Chemical Oxygen Demand, Total	410.4	5.0 U	mg/L	5.0	3.8	1	11/10/19 14:47	NA	
Chloride	9056A	0.20 U	mg/L	0.20	0.05	1	11/06/19 18:04	NA	
Chromium, Hexavalent	7196A	0.010 U	mg/L	0.010	0.003	1	11/06/19 20:27	NA	
Color, True	SM 2120 B-2001(2011)	1.0	ColorUnits	1.0	-	1	11/07/19 07:00	NA	
Cyanide, Total	Kelada-01	0.0050 U	mg/L	0.0050	0.0040	1	11/13/19 15:37	NA	
Nitrate as Nitrogen	9056A	0.10 U	mg/L	0.10	0.02	1	11/06/19 18:04	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20 U	mg/L	0.20	0.1	1	11/08/19 12:57	11/07/19	
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.001	1	11/11/19 21:47	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	10 U	mg/L	10	9	1	11/08/19 08:10	NA	
Sulfate	9056A	0.20 U	mg/L	0.20	0.04	1	11/06/19 18:04	NA	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters
Sample Matrix: Water

Service Request:R1910842
Date Collected:11/05/19
Date Received:11/06/19
Date Analyzed:11/6/19

**Duplicate Matrix Spike Summary
General Chemistry Parameters**

Sample Name: GSS2EF-1119 **Units:**mg/L
Lab Code: R1910842-001 **Basis:**NA

Analyte Name	Method	Sample Result	Result	Matrix Spike R1910842-001MS		Duplicate Matrix Spike R1910842-001DMS					
				Spike Amount	% Rec	Result	Spike Amount	% Rec	Limits	RPD	RPD Limit
Bromide	9056A	1.0 U	10.2	10.0	102	10.1	10.0	101	80-120	<1	15
Chloride	9056A	5.8	26.2	20.0	102	26.1	20.0	101	80-120	<1	15
Nitrate as Nitrogen	9056A	1.0 U	10.2	10.0	102	10.2	10.0	102	80-120	<1	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters
Sample Matrix: Water

Service Request: R1910842
Date Analyzed: 11/06/19 - 11/14/19

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R1910842-LCS

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Alkalinity, Total as CaCO ₃	SM 2320 B-1997(2011)	18.8	20.0	94	80-120
Ammonia as Nitrogen, undistilled	350.1	0.250	0.250	100	90-110
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	184	198	93	85-115
Bromide	9056A	1.00	1.00	100	80-120
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	10.2	10.0	102	80-121
Chemical Oxygen Demand, Total	410.4	51.6	50.0	103	90-110
Chloride	9056A	2.07	2.00	103	80-120
Chromium, Hexavalent	7196A	0.108	0.100	108	80-120
Cyanide, Total	Kelada-01	0.0960	0.100	96	90-110
Nitrate as Nitrogen	9056A	1.02	1.00	102	80-120
Nitrogen, Total Kjeldahl (TKN)	351.2	2.35	2.50	94	90-110
Phenolics, Total Recoverable	9066	0.0401	0.0400	100	85-115
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	914	914	100	90-110
Sulfate	9056A	2.02	2.00	101	80-120



November 21, 2019

Service Request No:R1910784

Russell Anderson
Casella Waste - Hyland
4 Chenell Drive
Suite 200
Concord, NH 03301

Laboratory Results for: Hyland Facility - Baseline Parameters

Dear Russell,

Enclosed are the results of the sample(s) submitted to our laboratory November 05, 2019
For your reference, these analyses have been assigned our service request number **R1910784**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Meghan Pedro for

Janice Jaeger
Project Manager

CC: Jon Brandes

ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
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ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory
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Phone (585) 288-5380 Fax (585) 288-8475
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Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters
Sample Matrix: Water

Service Request: R1910784
Date Received: 11/05/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

One water sample was received for analysis at ALS Environmental on 11/05/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

General Chemistry:

Method 7196A: One or more samples were received with insufficient hold time remaining to complete the analysis within the recommended limit. The analysis was performed as soon as possible after receipt by the laboratory. The data is flagged to indicate the holding time exceedance.

Volatiles by GC/MS:

Method 8260C, 11/06/2019: The Method Blank contained a low level of the following analytes above the Reporting Limit: acetone. All associated sample results less than ten times the level found in the Method Blank are flagged. The samples were not reprepared/reanalyzed because of contaminated vials.

Method 8260C, 11/06/2019: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

A handwritten signature in black ink, appearing to read "Samanta".

Approved by _____

Date 11/21/2019



Sample Receipt Information

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters

Service Request:R1910784

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1910784-001	GSS3-1119	11/4/2019	1320



ALS-Environmental
 1565 Jefferson Rd, Bldg 300, Suite 360
 Rochester, NY 14623
 585.288.5380

Client: **Casella/On-Site**
 6653 Herdman Road
 Angelica, NY 14709

Project Manager: **Russ Anderson/Jon Brandes**

CHAIN of CUSTODY

Project: **Hyland Facility - Baseline Parameters**

Telephone No. 585-593-1824
 Email: jonb@on-sitehs.com

Method of Shipment

UPS

Special Detection Limit/Reporting

PDF to Russ and On-Site, and EDD to On-Site.

Sample I.D.

Lab Sample No.	No. of Containers	Matrix				Prsv.		Sampling Date	Sampling Time	GC:MS VOC's 8260 (HCl)	BOD (NP)	T-Cn (NaOH)	Alkalinity (NP)	Total Color (NP)	T-Metals (Baseline) (HNO3)	Hardness (HNO3)	TOC & Phenols (H2SO4)	TDS, Cr+6, NO3, Br, Cl, SO4 (NP)	NH3, TKN, COD (H2SO4)																		
		Soil	Water	Air	Other	Yes	No																														
<i>GSS3-1119</i>	<i>12</i>	<i>X</i>				<i>X</i>	<i>X</i>	<i>11-4-19</i>	<i>1320</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>																		

R E M A R K S

Sample Received Intact: Yes No Temperature received: Ice No ice

Relinquished by: <i>Kevin Dye / Kevin Dye</i>	Date: <i>11-4-19</i>	Time: <i>1340</i>	Received by (Sign & Print Name):	Lab Work No.
Relinquished by:	Date:	Time:	Received by:	
Relinquished by:	Date:	Time:	Received by:	
Relinquished by:	Date:	Time:	Received by laboratory: <i>[Signature]</i>	

Date: *11/5/19* Time: *1155*

R1910784 5
 Casella Waste - Hyland
 Hyland Facility - Baseline Parameters



Cooler Receipt and Preservation Check Form

R1910784

5

Casella Waste - Hyland
Hyland Facility - Baseline Parameters



Project/Client Casella - Hyland Folder Number _____

Cooler received on 11/5/19 by: (2)

COURIER: ALS (UPS) ~~FEDEX~~ VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	<input checked="" type="radio"/> Y	<input type="radio"/> N
2	Custody papers properly completed (ink, signed)?	<input checked="" type="radio"/> Y	<input type="radio"/> N
3	Did all bottles arrive in good condition (unbroken)?	<input checked="" type="radio"/> Y	<input type="radio"/> N
4	Circle: <u>Wet Ice</u> Dry Ice Gel packs present?	<input checked="" type="radio"/> Y	<input type="radio"/> N

5a	Perchlorate samples have required headspace?	Y	<input checked="" type="radio"/> N	<input type="radio"/> NA
5b	Did <u>VOA</u> vials <u>Alk</u> or Sulfide have sig* bubbles?	Y	<input checked="" type="radio"/> N	<input type="radio"/> NA
6	Where did the bottles originate?	<u>ALS/ROC</u>	CLIENT	
7	Soil VOA received as:	Bulk	Encore	5035set <input checked="" type="radio"/> NA

8. Temperature Readings Date: 11/5/19 Time: 1213 ID: IR#7 R#10 From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>1.1</u>							
Correction Factor (°C)	<u>-</u>							
Corrected Temp (°C)	<u>/</u>							
Temp from: Type of bottle								
Within 0-6°C?	<input checked="" type="radio"/> Y	<input type="radio"/> N	<input type="radio"/> Y	<input type="radio"/> N	<input type="radio"/> Y	<input type="radio"/> N	<input type="radio"/> Y	<input type="radio"/> N
If <0°C, were samples frozen?	<input checked="" type="radio"/> Y	<input type="radio"/> N	<input type="radio"/> Y	<input type="radio"/> N	<input type="radio"/> Y	<input type="radio"/> N	<input type="radio"/> Y	<input type="radio"/> N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-02 by (2) on 11/5/19 at 1218
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 11/5/19 Time: 1510 by: (2)

- 9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
- 10. Did all bottle labels and tags agree with custody papers? YES NO
- 11. Were correct containers used for the tests indicated? YES NO
- 12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO N/A
- 13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated N/A

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12	<u>2300X</u>	NaOH	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>202153</u>	<u>10/20</u>				
≥2		HNO ₃	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>1118081</u>					
≥2		H ₂ SO ₄	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>202739</u>					
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For <u>CN</u> , <u>Phenol</u> , 625, 608pest, 522	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		Zn Acetate	-	-						
		HCl	**	**	<u>7050-11</u>					

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 093019-1BMC, 082619-2A00, 19-03-09, 80819-02, 072219-1BMC
Explain all Discrepancies/ Other Comments:

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
ALS	REV

Labels secondary reviewed by: (2)
PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



Miscellaneous Forms

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REPORT QUALIFIERS AND DEFINITIONS

- | | |
|---|---|
| <p>U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p>J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).</p> <p>B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p>E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p>E Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p>D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p>* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p>H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p># Spike was diluted out.</p> | <p>+ Correlation coefficient for MSA is <0.995.</p> <p>N Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p>N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p>S Concentration has been determined using Method of Standard Additions (MSA).</p> <p>W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.</p> <p>P Concentration >40% difference between the two GC columns.</p> <p>C Confirmed by GC/MS</p> <p>Q DoD reports: indicates a pesticide/Aroclor is not confirmed (>100% Difference between two GC columns).</p> <p>X See Case Narrative for discussion.</p> <p>MRL Method Reporting Limit. Also known as:</p> <p>LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p>MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p>LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p>ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|---|



Rochester Lab ID # for State Certifications¹

Connecticut ID # PH0556	Maine ID #NY0032	Pennsylvania ID# 68-786
Delaware Approved	New Hampshire ID # 2941	Rhode Island ID # 158
DoD ELAP #65817	New York ID # 10145	Virginia #460167
Florida ID # E87674	North Carolina #676	

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

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Analyst Summary report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters/

Service Request: R1910784

Sample Name: GSS3-1119
Lab Code: R1910784-001
Sample Matrix: Water

Date Collected: 11/4/19
Date Received: 11/5/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		MROGERSON
351.2	NSMITH	GNITAJOUPPI
410.4		CWOODS
6010C	AKONZEL	KMCLAEN
7196A		SMEDBURY
7470A	AKONZEL	KMCLAEN
8260C		FNAEGLER
9056A		KAWONG
9056A		KWONG
9066		BBOWE
Kelada-01		CWOODS
SM 2120 B-2001(2011)		KAWONG
SM 2320 B-1997(2011)		STALARICO
SM 2540 C-1997(2011)		KAWONG
SM 5210 B-2001(2011)		NSMITH
SM 5310 C-2000(2011)		CWOODS



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.



Sample Results

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Volatile Organic Compounds by GC/MS

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters
Sample Matrix: Water

Service Request: R1910784
Date Collected: 11/04/19 13:20
Date Received: 11/05/19 11:55

Sample Name: GSS3-1119
Lab Code: R1910784-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	5.0 U	5.0	0.20	1	11/06/19 17:28	
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	11/06/19 17:28	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	11/06/19 17:28	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	11/06/19 17:28	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	11/06/19 17:28	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	11/06/19 17:28	
1,2,3-Trichloropropane	5.0 U	5.0	0.26	1	11/06/19 17:28	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	11/06/19 17:28	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	11/06/19 17:28	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	11/06/19 17:28	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	11/06/19 17:28	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	11/06/19 17:28	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	11/06/19 17:28	
2-Butanone (MEK)	1.8 J	10	0.78	1	11/06/19 17:28	
2-Hexanone	10 U	10	0.20	1	11/06/19 17:28	
4-Methyl-2-pentanone	0.46 J	10	0.20	1	11/06/19 17:28	
Acetone	5.2 BJ	10	2.1	1	11/06/19 17:28	
Acrylonitrile	100 U	100	0.90	1	11/06/19 17:28	
Benzene	5.0 U	5.0	0.20	1	11/06/19 17:28	
Bromochloromethane	5.0 U	5.0	0.24	1	11/06/19 17:28	
Bromodichloromethane	5.0 U	5.0	0.22	1	11/06/19 17:28	
Bromoform	5.0 U	5.0	0.25	1	11/06/19 17:28	
Bromomethane	5.0 U	5.0	0.70	1	11/06/19 17:28	
Carbon Disulfide	10 U	10	0.25	1	11/06/19 17:28	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	11/06/19 17:28	
Chlorobenzene	5.0 U	5.0	0.20	1	11/06/19 17:28	
Chloroethane	5.0 U	5.0	0.23	1	11/06/19 17:28	
Chloroform	5.0 U	5.0	0.24	1	11/06/19 17:28	
Chloromethane	0.33 BJ	5.0	0.28	1	11/06/19 17:28	
Dibromochloromethane	5.0 U	5.0	0.20	1	11/06/19 17:28	
Dibromomethane	5.0 U	5.0	0.20	1	11/06/19 17:28	
Methylene Chloride	5.0 U	5.0	0.36	1	11/06/19 17:28	
Ethylbenzene	5.0 U	5.0	0.20	1	11/06/19 17:28	
Iodomethane	10 U	10	1.2	1	11/06/19 17:28	
Styrene	5.0 U	5.0	0.20	1	11/06/19 17:28	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	11/06/19 17:28	
Toluene	5.0 U	5.0	0.20	1	11/06/19 17:28	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	11/06/19 17:28	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.24	1	11/06/19 17:28	
Vinyl Acetate	10 U	10	1.1	1	11/06/19 17:28	
Vinyl Chloride	5.0 U	5.0	0.20	1	11/06/19 17:28	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	11/06/19 17:28	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	11/06/19 17:28	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters
Sample Matrix: Water

Service Request: R1910784
Date Collected: 11/04/19 13:20
Date Received: 11/05/19 11:55

Sample Name: GSS3-1119
Lab Code: R1910784-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
m,p-Xylenes	5.0 U	5.0	0.20	1	11/06/19 17:28	
o-Xylene	5.0 U	5.0	0.20	1	11/06/19 17:28	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	11/06/19 17:28	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	11/06/19 17:28	
trans-1,4-Dichloro-2-butene	5.0 U	5.0	0.78	1	11/06/19 17:28	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	85 - 122	11/06/19 17:28	
Dibromofluoromethane	99	89 - 119	11/06/19 17:28	
Toluene-d8	104	87 - 121	11/06/19 17:28	



Metals

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METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Casella Waste Systems (Hampden M **Service Request:** GSS3-1119
Project No.: R1910784 **Date Collected:** 11/4/2019
Project Name: **Date Received:** 11/5/2019
Matrix: WATER **Units:** ug/L
Basis:

Sample Name: GSS3-1119 **Lab Code:** R1910784-001

Analyte	Analysis Method	PQL	MDL	Dil. Factor	Result	C	Q
Aluminum	6010C	100	23.0	1.0	31.0	J	
Antimony	6010C	60.0	4.7	1.0	60.0	U	
Arsenic	6010C	10.0	3.9	1.0	17.4		
Barium	6010C	20.0	3.0	1.0	83.3		
Beryllium	6010C	3.0	0.130	1.0	3.0	U	
Boron	6010C	200	12.0	1.0	91.2	J	
Cadmium	6010C	5.0	0.350	1.0	5.0	U	
Mercury	7470A	0.200	0.077	1.0	0.200	U	
Calcium	6010C	1000	220	1.0	94500		
Chromium	6010C	10.0	0.590	1.0	10.0	U	
Cobalt	6010C	50.0	0.890	1.0	50.0	U	
Copper	6010C	20.0	3.9	1.0	20.0	U	
Iron	6010C	100	18.0	1.0	278		
Lead	6010C	50.0	2.1	1.0	50.0	U	
Magnesium	6010C	1000	29.0	1.0	34700		
Manganese	6010C	10.0	3.7	1.0	919		
Nickel	6010C	40.0	2.6	1.0	40.0	U	
Potassium	6010C	2000	200	1.0	5650		
Selenium	6010C	10.0	4.6	1.0	10.0	U	
Silver	6010C	10.0	0.570	1.0	10.0	U	
Sodium	6010C	1000	130	1.0	10700		
Thallium	6010C	10.0	6.6	1.0	10.0	U	
Vanadium	6010C	50.0	0.670	1.0	50.0	U	
Zinc	6010C	20.0	9.4	1.0	20.0	U	

% Solids: 0.0

Comments:



General Chemistry

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters
Sample Matrix: Water
Sample Name: GSS3-1119
Lab Code: R1910784-001

Service Request: R1910784
Date Collected: 11/04/19 13:20
Date Received: 11/05/19 11:55

Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	270	mg/L	2.0	1.8	1	11/06/19 17:33	NA	
Ammonia as Nitrogen, undistilled	350.1	0.080	mg/L	0.050	0.003	1	11/08/19 20:39	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/06/19 08:31	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/06/19 10:25	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.3	mg/L	1.0	0.5	1	11/09/19 05:54	NA	
Chemical Oxygen Demand, Total	410.4	5.0 U	mg/L	5.0	3.8	1	11/10/19 14:47	NA	
Chloride	9056A	5.7	mg/L	2.0	0.5	10	11/06/19 10:25	NA	
Chromium, Hexavalent	7196A	0.010 U	mg/L	0.010	0.003	1	11/05/19 15:07	NA	*
Color, True	SM 2120 B-2001(2011)	7.0	ColorUnits	1.0	-	1	11/05/19 13:25	NA	
Cyanide, Total	Kelada-01	0.0050 U	mg/L	0.0050	0.0040	1	11/06/19 19:06	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	379	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	0.2	10	11/06/19 10:25	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.15 J	mg/L	0.20	0.10	1	11/08/19 12:18	11/07/19	
pH of Color Analysis	SM 2120 B-2001(2011)	7.36	pH Units	-	-	1	11/08/19 14:40	NA	*
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.0010	1	11/11/19 21:33	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	476	mg/L	10	9	1	11/07/19 11:15	NA	
Sulfate	9056A	127	mg/L	4.0	0.8	20	11/07/19 20:35	NA	



QC Summary Forms

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Volatile Organic Compounds by GC/MS

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Phone (585) 288-5380 Fax (585) 288-8475
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Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters
Sample Matrix: Water

Service Request: R1910784

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: EPA 5030C

Sample Name	Lab Code	4-Bromofluorobenzene 85-122	Dibromofluoromethane 89-119	Toluene-d8 87-121
GSS3-1119	R1910784-001	103	99	104
Method Blank	RQ1913007-10	103	99	103
Lab Control Sample	RQ1913007-09	108	104	104

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters
Sample Matrix: Water

Service Request: R1910784
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1913007-10

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	5.0 U	5.0	0.20	1	11/06/19 14:43	
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	11/06/19 14:43	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	11/06/19 14:43	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	11/06/19 14:43	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	11/06/19 14:43	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	11/06/19 14:43	
1,2,3-Trichloropropane	5.0 U	5.0	0.26	1	11/06/19 14:43	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	11/06/19 14:43	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	11/06/19 14:43	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	11/06/19 14:43	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	11/06/19 14:43	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	11/06/19 14:43	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	11/06/19 14:43	
2-Butanone (MEK)	10 U	10	0.78	1	11/06/19 14:43	
2-Hexanone	10 U	10	0.20	1	11/06/19 14:43	
4-Methyl-2-pentanone	10 U	10	0.20	1	11/06/19 14:43	
Acetone	29	10	2.1	1	11/06/19 14:43	
Acrylonitrile	100 U	100	0.90	1	11/06/19 14:43	
Benzene	5.0 U	5.0	0.20	1	11/06/19 14:43	
Bromochloromethane	5.0 U	5.0	0.24	1	11/06/19 14:43	
Bromodichloromethane	5.0 U	5.0	0.22	1	11/06/19 14:43	
Bromoform	5.0 U	5.0	0.25	1	11/06/19 14:43	
Bromomethane	5.0 U	5.0	0.70	1	11/06/19 14:43	
Carbon Disulfide	10 U	10	0.25	1	11/06/19 14:43	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	11/06/19 14:43	
Chlorobenzene	5.0 U	5.0	0.20	1	11/06/19 14:43	
Chloroethane	5.0 U	5.0	0.23	1	11/06/19 14:43	
Chloroform	5.0 U	5.0	0.24	1	11/06/19 14:43	
Chloromethane	1.5 J	5.0	0.28	1	11/06/19 14:43	
Dibromochloromethane	5.0 U	5.0	0.20	1	11/06/19 14:43	
Dibromomethane	5.0 U	5.0	0.20	1	11/06/19 14:43	
Methylene Chloride	5.0 U	5.0	0.36	1	11/06/19 14:43	
Ethylbenzene	5.0 U	5.0	0.20	1	11/06/19 14:43	
Iodomethane	10 U	10	1.2	1	11/06/19 14:43	
Styrene	5.0 U	5.0	0.20	1	11/06/19 14:43	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	11/06/19 14:43	
Toluene	5.0 U	5.0	0.20	1	11/06/19 14:43	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	11/06/19 14:43	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.24	1	11/06/19 14:43	
Vinyl Acetate	10 U	10	1.1	1	11/06/19 14:43	
Vinyl Chloride	5.0 U	5.0	0.20	1	11/06/19 14:43	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	11/06/19 14:43	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	11/06/19 14:43	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters
Sample Matrix: Water

Service Request: R1910784
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1913007-10

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
m,p-Xylenes	5.0 U	5.0	0.20	1	11/06/19 14:43	
o-Xylene	5.0 U	5.0	0.20	1	11/06/19 14:43	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	11/06/19 14:43	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	11/06/19 14:43	
trans-1,4-Dichloro-2-butene	5.0 U	5.0	0.78	1	11/06/19 14:43	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	85 - 122	11/06/19 14:43	
Dibromofluoromethane	99	89 - 119	11/06/19 14:43	
Toluene-d8	103	87 - 121	11/06/19 14:43	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters
Sample Matrix: Water

Service Request: R1910784
Date Analyzed: 11/06/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1913007-09

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	8260C	18.5	20.0	92	76-129
1,1,1-Trichloroethane (TCA)	8260C	18.3	20.0	91	75-125
1,1,2,2-Tetrachloroethane	8260C	22.1	20.0	110	78-126
1,1,2-Trichloroethane	8260C	20.4	20.0	102	82-121
1,1-Dichloroethane (1,1-DCA)	8260C	20.6	20.0	103	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	19.3	20.0	97	71-118
1,2,3-Trichloropropane	8260C	17.2	20.0	86	75-118
1,2-Dibromo-3-chloropropane (DBCP)	8260C	13.8	20.0	69	55-136
1,2-Dibromoethane	8260C	18.7	20.0	94	82-127
1,2-Dichlorobenzene	8260C	19.3	20.0	96	80-119
1,2-Dichloroethane	8260C	21.1	20.0	106	71-127
1,2-Dichloropropane	8260C	20.7	20.0	104	80-119
1,4-Dichlorobenzene	8260C	19.1	20.0	96	79-119
2-Butanone (MEK)	8260C	18.6	20.0	93	61-137
2-Hexanone	8260C	18.0	20.0	90	63-124
4-Methyl-2-pentanone	8260C	19.5	20.0	97	66-124
Acetone	8260C	28.5	20.0	143	40-161
Acrylonitrile	8260C	94.3 J	100	94	71-130
Benzene	8260C	20.0	20.0	100	79-119
Bromochloromethane	8260C	20.3	20.0	101	81-126
Bromodichloromethane	8260C	19.7	20.0	99	81-123
Bromoform	8260C	16.4	20.0	82	65-146
Bromomethane	8260C	25.7	20.0	128	42-166
Carbon Disulfide	8260C	21.7	20.0	108	66-128
Carbon Tetrachloride	8260C	16.6	20.0	83	70-127
Chlorobenzene	8260C	18.9	20.0	94	80-121
Chloroethane	8260C	20.6	20.0	103	62-131
Chloroform	8260C	19.4	20.0	97	79-120
Chloromethane	8260C	24.1	20.0	120	65-135
Dibromochloromethane	8260C	19.1	20.0	95	72-128
Dibromomethane	8260C	19.8	20.0	99	80-118
Methylene Chloride	8260C	20.4	20.0	102	73-122
Ethylbenzene	8260C	18.0	20.0	90	76-120

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters
Sample Matrix: Water

Service Request: R1910784
Date Analyzed: 11/06/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1913007-09

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Iodomethane	8260C	21.8	20.0	109	18-160
Styrene	8260C	19.2	20.0	96	80-124
Tetrachloroethene (PCE)	8260C	16.4	20.0	82	72-125
Toluene	8260C	19.5	20.0	98	79-119
Trichloroethene (TCE)	8260C	16.6	20.0	83	74-122
Trichlorofluoromethane (CFC 11)	8260C	19.7	20.0	99	71-136
Vinyl Acetate	8260C	19.8	20.0	99	52-174
Vinyl Chloride	8260C	21.0	20.0	105	74-159
cis-1,2-Dichloroethene	8260C	20.3	20.0	101	80-121
cis-1,3-Dichloropropene	8260C	19.1	20.0	95	77-122
m,p-Xylenes	8260C	36.3	40.0	91	80-126
o-Xylene	8260C	18.7	20.0	94	79-123
trans-1,2-Dichloroethene	8260C	19.6	20.0	98	73-118
trans-1,3-Dichloropropene	8260C	18.1	20.0	90	71-133
trans-1,4-Dichloro-2-butene	8260C	18.0	20.0	90	39-137



Metals

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METALS

-3-

BLANKS

Contract: R1910784

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: GSS3-1119

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	Continuing Calibration Blank ug/L						Preparation Blank		M
		1	C	2	C	3	C	C		
Aluminum	23.00 U	23.00	U	23.00	U	23.00	U	23.00	U	P
Antimony	4.70 U	4.70	U	4.70	U	4.70	U	4.700	U	P
Arsenic	3.90 U	3.90	U	3.90	U	3.90	U	3.900	U	P
Barium	3.00 U	3.00	U	3.00	U	3.00	U	3.000	U	P
Beryllium	0.13 U	0.13	U	0.13	U	0.13	U	0.130	U	P
Boron	12.00 U	12.00	U	12.00	U	12.00	U	12.000	U	P
Cadmium	0.35 U	0.35	U	0.35	U	0.35	U	0.350	U	P
Mercury	0.077 U	0.077	U	0.077	U	0.077	U	0.077	U	CV
Calcium	220.00 U	220.00	U	220.00	U	220.00	U	220.000	U	P
Chromium	0.59 U	0.59	U	0.59	U	0.59	U	0.590	U	P
Cobalt	0.89 U	0.89	U	0.89	U	0.89	U	0.890	U	P
Copper	3.90 U	3.90	U	3.90	U	3.90	U	3.900	U	P
Iron	18.00 U	18.00	U	18.00	U	18.00	U	18.000	U	P
Lead	2.10 U	2.10	U	-2.50	J	2.10	U	2.100	U	P
Magnesium	29.00 U	29.00	U	29.00	U	29.00	U	29.000	U	P
Manganese	3.70 U	3.70	U	3.70	U	3.70	U	3.700	U	P
Nickel	2.60 U	2.60	U	2.60	U	2.60	U	2.600	U	P
Potassium	200.00 U	200.00	U	200.00	U	200.00	U	200.000	U	P
Selenium	4.60 U	4.60	U	4.60	U	4.60	U	4.600	U	P
Silver	0.57 U	0.57	U	0.57	U	0.57	U	0.570	U	P
Sodium	130.00 U	130.00	U	130.00	U	130.00	U	130.000	U	P
Thallium	6.60 U	6.60	U	6.60	U	6.60	U	6.600	U	P
Vanadium	0.67 U	0.67	U	0.67	U	0.67	U	0.670	U	P
Zinc	9.40 U	9.40	U	9.40	U	9.40	U	9.400	U	P

Comments:

METALS

-3-

BLANKS

Contract: R1910784

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: GSS3-1119

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	Continuing Calibration Blank ug/L						Preparation Blank		M
		1	C	2	C	3	C	C		
Aluminum		23.00	U	23.00	U					P
Antimony		4.70	U	4.70	U					P
Arsenic		3.90	U	3.90	U					P
Barium		3.00	U	3.00	U					P
Beryllium		0.13	U	0.13	U					P
Boron		12.00	U	12.00	U					P
Cadmium		0.35	U	0.35	U					P
Mercury		0.077	U							CV
Calcium		220.00	U	220.00	U					P
Chromium		0.59	U	0.59	U					P
Cobalt		0.89	U	0.89	U					P
Copper		3.90	U	3.90	U					P
Iron		18.00	U	18.00	U					P
Lead		2.10	U	2.10	U					P
Magnesium		29.00	U	29.00	U					P
Manganese		3.70	U	3.70	U					P
Nickel		2.60	U	2.60	U					P
Potassium		200.00	U	200.00	U					P
Selenium		4.60	U	4.60	U					P
Silver		0.57	U	0.57	U					P
Sodium		130.00	U	130.00	U					P
Thallium		6.60	U	6.60	U					P
Vanadium		0.67	U	0.67	U					P
Zinc		9.40	U	9.40	U					P

Comments:

METALS
-6-
DUPLICATES

SAMPLE NO.

DLCSW

Contract: R1910784

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: GSS3-1119

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S) C	Duplicate (D) C	RPD	Q	M
Aluminum		1810	1790	1		P
Antimony		482	476	1		P
Arsenic		40	42	5		P
Barium		2110	2080	1		P
Beryllium		51	50	2		P
Boron		1000	988	1		P
Cadmium		52	51	2		P
Calcium		1790	1770	1		P
Chromium		206	204	1		P
Cobalt		517	510	1		P
Copper		235	232	1		P
Iron		975	962	1		P
Lead		507	500	1		P
Magnesium		1940	1910	2		P
Manganese		505	498	1		P
Nickel		509	501	2		P
Potassium		19400	19200	1		P
Selenium		1080	1070	1		P
Silver		49	48	2		P
Sodium		20100	19800	2		P
Thallium		1860	1830	2		P
Vanadium		505	498	1		P
Zinc		512	503	2		P

Comments:

METALS

-7-

LABORATORY CONTROL SAMPLE

Contract: R1910784

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: GSS3-1119

Solid LCS Source: _____

Aqueous LCS Source: CPI

Analyte	Aqueous (ug/L)			Solid (mg/K)				
	True	Found	%R	True	Found	C	Limits	%R
Aluminum	2000	1810	90					
Antimony	500	482	96					
Arsenic	40	40	100					
Barium	2000	2110	106					
Beryllium	50	51	102					
Boron	1000	1000	100					
Cadmium	50	52	104					
Mercury	1.000	1.010	101					
Calcium	2000	1790	90					
Chromium	200	206	103					
Cobalt	500	517	103					
Copper	250	235	94					
Iron	1000	975	98					
Lead	500	507	101					
Magnesium	2000	1940	97					
Manganese	500	505	101					
Nickel	500	509	102					
Potassium	20000	19400	97					
Selenium	1010	1080	107					
Silver	50	49	98					
Sodium	20000	20100	100					
Thallium	2000	1860	93					
Vanadium	500	505	101					
Zinc	500	512	102					

Comments: _____

METALS

-7-

LABORATORY CONTROL SAMPLE

Contract: R1910784

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: GSS3-1119

Solid LCS Source: _____

Aqueous LCS Source: CPI

Analyte	Aqueous (ug/L)			Solid (mg/K)				
	True	Found	%R	True	Found	C	Limits	%R
Aluminum	2000	1790	90					
Antimony	500	476	95					
Arsenic	40	42	105					
Barium	2000	2080	104					
Beryllium	50	50	100					
Boron	1000	988	99					
Cadmium	50	51	102					
Calcium	2000	1770	88					
Chromium	200	204	102					
Cobalt	500	510	102					
Copper	250	232	93					
Iron	1000	962	96					
Lead	500	500	100					
Magnesium	2000	1910	96					
Manganese	500	498	100					
Nickel	500	501	100					
Potassium	20000	19200	96					
Selenium	1010	1070	106					
Silver	50	48	96					
Sodium	20000	19800	99					
Thallium	2000	1830	92					
Vanadium	500	498	100					
Zinc	500	503	101					

Comments: _____



General Chemistry

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1910784-MB

Service Request: R1910784
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	2.0 U	mg/L	2.0	1.8	1	11/06/19 15:50	NA	
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.003	1	11/08/19 20:02	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/06/19 17:20	NA	
Bromide	9056A	0.10 U	mg/L	0.10	0.04	1	11/06/19 09:37	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	0.5	1	11/09/19 03:07	NA	
Chemical Oxygen Demand, Total	410.4	5.0 U	mg/L	5.0	3.8	1	11/10/19 14:47	NA	
Chloride	9056A	0.20 U	mg/L	0.20	0.05	1	11/06/19 09:37	NA	
Chromium, Hexavalent	7196A	0.010 U	mg/L	0.010	0.003	1	11/05/19 14:55	NA	
Color, True	SM 2120 B-2001(2011)	1.0	ColorUnits	1.0	-	1	11/05/19 13:25	NA	
Cyanide, Total	Kelada-01	0.0050 U	mg/L	0.0050	0.0040	1	11/06/19 17:02	NA	
Nitrate as Nitrogen	9056A	0.10 U	mg/L	0.10	0.02	1	11/06/19 09:37	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20 U	mg/L	0.20	0.10	1	11/08/19 12:04	11/07/19	
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.001	1	11/11/19 19:56	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	10 U	mg/L	10	9	1	11/07/19 11:15	NA	
Sulfate	9056A	0.20 U	mg/L	0.20	0.04	1	11/07/19 17:02	NA	

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters
Sample Matrix: Water

Service Request: R1910784
Date Collected: 11/04/19
Date Received: 11/05/19
Date Analyzed: 11/05/19

Replicate Sample Summary
General Chemistry Parameters

Sample Name: GSS3-1119
Lab Code: R1910784-001

Units: ColorUnits
Basis: NA

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>MRL</u>	<u>Sample Result</u>	<u>Duplicate Sample R1910784-001DUP Result</u>	<u>Average</u>	<u>RPD</u>	<u>RPD Limit</u>
Color, True	SM 2120 B-2001(2011)	1.0	7.0	7.0	7.00	<1	5

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters
Sample Matrix: Water

Service Request: R1910784
Date Collected: 11/04/19
Date Received: 11/05/19
Date Analyzed: 11/08/19

Replicate Sample Summary
General Chemistry Parameters

Sample Name: GSS3-1119
Lab Code: R1910784-001

Units: pH Units
Basis: NA

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>MRL</u>	<u>Sample Result</u>	<u>Duplicate Sample R1910784-001DUP Result</u>	<u>Average</u>	<u>RPD</u>	<u>RPD Limit</u>
pH of Color Analysis	SM 2120 B-2001(2011)	-	7.36	7.36	7.36	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Baseline Parameters
Sample Matrix: Water

Service Request: R1910784
Date Analyzed: 11/05/19 - 11/11/19

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R1910784-LCS

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	19.2	20.0	96	80-120
Ammonia as Nitrogen, undistilled	350.1	0.251	0.250	101	90-110
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	185	198	93	85-115
Bromide	9056A	1.01	1.00	101	80-120
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	10.1	10.0	101	80-121
Chemical Oxygen Demand, Total	410.4	50.0	50.0	100	90-110
Chloride	9056A	2.03	2.00	102	80-120
Chromium, Hexavalent	7196A	0.108	0.100	108	80-120
Cyanide, Total	Kelada-01	0.0994	0.100	99	90-110
Nitrate as Nitrogen	9056A	1.01	1.00	101	80-120
Nitrogen, Total Kjeldahl (TKN)	351.2	2.31	2.50	92	90-110
Phenolics, Total Recoverable	9066	0.0403	0.0400	101	85-115
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	900	914	98	90-110
Sulfate	9056A	2.02	2.00	101	80-120



November 20, 2019

Service Request No:R1911087

Russell Anderson
Casella Waste - Hyland
4 Chenell Drive
Suite 200
Concord, NH 03301

Laboratory Results for: Hyland Facility - Routine Parameters

Dear Russell,

Enclosed are the results of the sample(s) submitted to our laboratory November 12, 2019
For your reference, these analyses have been assigned our service request number **R1911087**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Meghan Pedro for

Janice Jaeger
Project Manager

CC: Jon Brandes

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dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory
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Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1911087
Date Received: 11/12/2019 - 11/13/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Eleven water samples were received for analysis at ALS Environmental on 11/12/2019 - 11/13/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

General Chemistry:

Method 351.2, 11/15/2019: The Continuing Calibration Blank (CCB) contained a low level of one or more analytes above the Method Reporting Limit (MRL). Since there were no detections of the analyte(s) in the associated field samples above the reporting level, there is no significant impact on the data.

A handwritten signature in black ink, appearing to read "Samantha".

Approved by _____

Date 11/20/2019



SAMPLE DETECTION SUMMARY

CLIENT ID: DB3-1119		Lab ID: R1911087-001					
Analyte	Results	Flag	MDL	MRL	Units	Method	
Alkalinity, Total as CaCO3	92.0		1.8	2.0	mg/L	SM 2320 B-1997 (2011)	
Ammonia as Nitrogen, undistilled	0.107		0.003	0.050	mg/L	350.1	
Carbon, Total Organic (TOC)	3.2		0.5	1.0	mg/L	SM 5310 C-2000 (2011)	
Chemical Oxygen Demand, Total	11.5		3.8	5.0	mg/L	410.4	
Chloride	4.9		0.5	2.0	mg/L	9056A	
Hardness, Total as CaCO3	148			6.62	mg/L	SM 2340 B-1997 (2011)	
Nitrate as Nitrogen	0.7	J	0.2	1.0	mg/L	9056A	
Nitrogen, Total Kjeldahl (TKN)	0.62		0.10	0.20	mg/L	351.2	
Phenolics, Total Recoverable	0.0016	J	0.0010	0.0050	mg/L	9066	
Solids, Total Dissolved (TDS)	227		9	10	mg/L	SM 2540 C-1997 (2011)	
Sulfate	55.6		0.4	2.0	mg/L	9056A	
Calcium, Total	42300		300	1000	ug/L	6010C	
Iron, Total	4330		20	100	ug/L	6010C	
Magnesium, Total	10300		30	1000	ug/L	6010C	
Manganese, Total	129		4	10	ug/L	6010C	
Potassium, Total	5700		200	2000	ug/L	6010C	
Sodium, Total	3800		200	1000	ug/L	6010C	

CLIENT ID: Goodliff-1119		Lab ID: R1911087-002					
Analyte	Results	Flag	MDL	MRL	Units	Method	
Alkalinity, Total as CaCO3	251		1.8	2.0	mg/L	SM 2320 B-1997 (2011)	
Carbon, Total Organic (TOC)	1.2		0.5	1.0	mg/L	SM 5310 C-2000 (2011)	
Chemical Oxygen Demand, Total	9.5		3.8	5.0	mg/L	410.4	
Chloride	3.6		0.5	2.0	mg/L	9056A	
Hardness, Total as CaCO3	345			6.62	mg/L	SM 2340 B-1997 (2011)	
Nitrate as Nitrogen	0.4	J	0.2	1.0	mg/L	9056A	
Solids, Total Dissolved (TDS)	486		9	10	mg/L	SM 2540 C-1997 (2011)	
Sulfate	136		0.8	4.0	mg/L	9056A	
Calcium, Total	89600		300	1000	ug/L	6010C	
Iron, Total	110	B	20	100	ug/L	6010C	
Magnesium, Total	29500		30	1000	ug/L	6010C	
Manganese, Total	145		4	10	ug/L	6010C	
Potassium, Total	2100		200	2000	ug/L	6010C	
Sodium, Total	32500		200	1000	ug/L	6010C	



SAMPLE DETECTION SUMMARY

CLIENT ID: Goodliff Trailer-1119 **Lab ID: R1911087-003**

Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	186		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Ammonia as Nitrogen, undistilled	0.217		0.003	0.050	mg/L	350.1
Biochemical Oxygen Demand (BOD)	2.1			2.0	mg/L	SM 5210 B-2001 (2011)
Carbon, Total Organic (TOC)	1.6		0.5	1.0	mg/L	SM 5310 C-2000 (2011)
Chemical Oxygen Demand, Total	10.8		3.8	5.0	mg/L	410.4
Chloride	3.3		0.5	2.0	mg/L	9056A
Hardness, Total as CaCO3	110			6.62	mg/L	SM 2340 B-1997 (2011)
Nitrate as Nitrogen	0.4	J	0.2	1.0	mg/L	9056A
Nitrogen, Total Kjeldahl (TKN)	0.38		0.10	0.20	mg/L	351.2
Solids, Total Dissolved (TDS)	198		9	10	mg/L	SM 2540 C-1997 (2011)
Cadmium, Total	0.6	J	0.4	5.0	ug/L	6010C
Calcium, Total	9600		300	1000	ug/L	6010C
Iron, Total	1860		20	100	ug/L	6010C
Magnesium, Total	20900		30	1000	ug/L	6010C
Manganese, Total	14		4	10	ug/L	6010C
Potassium, Total	3400		200	2000	ug/L	6010C
Sodium, Total	39800		200	1000	ug/L	6010C

CLIENT ID: Hutchesons-1119 **Lab ID: R1911087-004**

Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	344		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Ammonia as Nitrogen, undistilled	0.221		0.003	0.050	mg/L	350.1
Bromide	2.2		0.4	1.0	mg/L	9056A
Carbon, Total Organic (TOC)	0.6	J	0.5	1.0	mg/L	SM 5310 C-2000 (2011)
Chemical Oxygen Demand, Total	4.6	J	3.8	5.0	mg/L	410.4
Chloride	171		0.9	4.0	mg/L	9056A
Hardness, Total as CaCO3	74.3			6.62	mg/L	SM 2340 B-1997 (2011)
Nitrogen, Total Kjeldahl (TKN)	0.28		0.10	0.20	mg/L	351.2
Solids, Total Dissolved (TDS)	711		9	10	mg/L	SM 2540 C-1997 (2011)
Sulfate	23.1		0.4	2.0	mg/L	9056A
Calcium, Total	19100		300	1000	ug/L	6010C
Iron, Total	1410		20	100	ug/L	6010C
Magnesium, Total	6400		30	1000	ug/L	6010C
Manganese, Total	80		4	10	ug/L	6010C
Potassium, Total	1200	J	200	2000	ug/L	6010C
Sodium, Total	248000		2000	10000	ug/L	6010C



SAMPLE DETECTION SUMMARY

CLIENT ID: H. Gardon-1119 **Lab ID: R1911087-007**

Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	237		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Ammonia as Nitrogen, undistilled	0.004	J	0.003	0.050	mg/L	350.1
Chemical Oxygen Demand, Total	4.9	J	3.8	5.0	mg/L	410.4
Chloride	3.5		0.5	2.0	mg/L	9056A
Hardness, Total as CaCO3	273			6.62	mg/L	SM 2340 B-1997 (2011)
Nitrogen, Total Kjeldahl (TKN)	0.17	J	0.10	0.20	mg/L	351.2
Solids, Total Dissolved (TDS)	329		9	10	mg/L	SM 2540 C-1997 (2011)
Sulfate	47.6		0.4	2.0	mg/L	9056A
Calcium, Total	76100		300	1000	ug/L	6010C
Magnesium, Total	20300		30	1000	ug/L	6010C
Potassium, Total	2700		200	2000	ug/L	6010C
Sodium, Total	10600		200	1000	ug/L	6010C

CLIENT ID: Shay Spring-1119 **Lab ID: R1911087-008**

Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	121		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Chloride	85.1		0.5	2.0	mg/L	9056A
Hardness, Total as CaCO3	204			6.62	mg/L	SM 2340 B-1997 (2011)
Nitrate as Nitrogen	0.4	J	0.2	1.0	mg/L	9056A
Nitrogen, Total Kjeldahl (TKN)	0.14	J	0.10	0.20	mg/L	351.2
Solids, Total Dissolved (TDS)	294		9	10	mg/L	SM 2540 C-1997 (2011)
Sulfate	18.0		0.4	2.0	mg/L	9056A
Calcium, Total	57500		300	1000	ug/L	6010C
Iron, Total	20	BJ	20	100	ug/L	6010C
Magnesium, Total	14700		30	1000	ug/L	6010C
Potassium, Total	1700	J	200	2000	ug/L	6010C
Sodium, Total	23400		200	1000	ug/L	6010C

CLIENT ID: Shay House-1119 **Lab ID: R1911087-009**

Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	127		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Chloride	85.9		0.5	2.0	mg/L	9056A
Nitrate as Nitrogen	0.4	J	0.2	1.0	mg/L	9056A
Solids, Total Dissolved (TDS)	330		9	10	mg/L	SM 2540 C-1997 (2011)
Sulfate	18.2		0.4	2.0	mg/L	9056A
Iron, Total	20	BJ	20	100	ug/L	6010C
Magnesium, Total	30	J	30	1000	ug/L	6010C
Potassium, Total	300	J	200	2000	ug/L	6010C



SAMPLE DETECTION SUMMARY

CLIENT ID: Shay House-1119	Lab ID: R1911087-009
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Analyte	Results	Flag	MDL	MRL	Units	Method
Sodium, Total	116000		200	1000	ug/L	6010C

CLIENT ID: Swineford-1119	Lab ID: R1911087-010
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Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	68.4		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Carbon, Total Organic (TOC)	0.5	J	0.5	1.0	mg/L	SM 5310 C-2000 (2011)
Chloride	6.8		0.5	2.0	mg/L	9056A
Hardness, Total as CaCO3	87.1			6.62	mg/L	SM 2340 B-1997 (2011)
Nitrate as Nitrogen	2.0		0.2	1.0	mg/L	9056A
Nitrogen, Total Kjeldahl (TKN)	0.14	J	0.10	0.20	mg/L	351.2
Solids, Total Dissolved (TDS)	136		9	10	mg/L	SM 2540 C-1997 (2011)
Sulfate	20.3		0.4	2.0	mg/L	9056A
Calcium, Total	24500		300	1000	ug/L	6010C
Iron, Total	30	BJ	20	100	ug/L	6010C
Magnesium, Total	6300		30	1000	ug/L	6010C
Manganese, Total	6	J	4	10	ug/L	6010C
Potassium, Total	5300		200	2000	ug/L	6010C
Sodium, Total	5900		200	1000	ug/L	6010C

CLIENT ID: Gordon Camp 2-1119	Lab ID: R1911087-011
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Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	270		1.8	2.0	mg/L	SM 2320 B-1997 (2011)
Ammonia as Nitrogen, undistilled	0.102		0.003	0.050	mg/L	350.1
Chloride	2.3		0.5	2.0	mg/L	9056A
Hardness, Total as CaCO3	302			6.62	mg/L	SM 2340 B-1997 (2011)
Solids, Total Dissolved (TDS)	372		9	10	mg/L	SM 2540 C-1997 (2011)
Sulfate	60.3		0.4	2.0	mg/L	9056A
Calcium, Total	78200		300	1000	ug/L	6010C
Iron, Total	2360		20	100	ug/L	6010C
Magnesium, Total	26000		30	1000	ug/L	6010C
Manganese, Total	157		4	10	ug/L	6010C
Potassium, Total	2100		200	2000	ug/L	6010C
Sodium, Total	22300		200	1000	ug/L	6010C



Sample Receipt Information

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters

Service Request:R1911087

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1911087-001	DB3-1119	11/11/2019	0925
R1911087-002	Goodliff-1119	11/11/2019	1000
R1911087-003	Goodliff Trailer-1119	11/11/2019	1045
R1911087-004	Hutchesons-1119	11/11/2019	1130
R1911087-005	MW40A-1119	11/11/2019	1220
R1911087-006	MW36A-1119	11/11/2019	1340
R1911087-007	H. Gardon-1119	11/11/2019	1400
R1911087-008	Shay Spring-1119	11/12/2019	1010
R1911087-009	Shay House-1119	11/12/2019	1030
R1911087-010	Swineford-1119	11/12/2019	1110
R1911087-011	Gordon Camp 2-1119	11/12/2019	1150



ALS-Environmental
1565 Jefferson Rd, Bldg 300, Suite 360
Rochester, NY 14623
585.288.5380

Client: **Casella/On-Site**
6653 Herdman Rd
Angelica NY. 14709

Project Manager: **Russ Anderson/Jon Brandes**

CHAIN of CUSTODY

Project: **Hyland - Routine Parameters**

Telephone No. 585-593-1824
Email: jonb@on-sitehs.com

Page 1 of 1
Method of Shipment: UPS

Special Detection Limit/Reporting

PDF to Russ and On-Site, and EDD to On-Site.

Sample I.D.	Lab Sample No.	No. of Containers	Matrix				Prsv.		Sampling Date	Sampling Time	BOD (NP)	Phenols & TOC (H2SO4)	Alkalinity (NP)	NH3, TKN, COD (H2SO4)	T-Metals, Hardness (Routine) (HNO3)	TDS, NO3, Br, Cl, SO4 (NP)
			Soil	Water	Air	Other	Yes	No								
DB3-1119	6	6	X				X	X	11-11-19	0925	X	X	X	X	X	X
Goodliff-1119	6	6	X				X	X	11-11-19	1000	X	X	X	X	X	X
Goodliff Trailer-1119	6	6	X				X	X	11-11-19	1045	X	X	X	X	X	X
Hutchesons-1119	6	6	X				X	X	11-11-19	1130	X	X	X	X	X	X
MW40A-1119	1	1	X				X	X	11-11-19	1220	X					
MW36A-1119	1	1	X				X	X	11-11-19	1340	X					
H. Gordon-1119	6	6	X				X	X	11-11-19	1400	X	X	X	X	X	X

REMARKS

minimal sample
minimal sample

Sample Received Intact: Yes No
Temperature received: Ice No ice

Relinquished by <i>Kevin Dye / Kevin Dye</i>	Date 11-11-19	Time 1530	Received by (Sign & Print Name)
Relinquished by	Date	Time	Received by
Relinquished by	Date	Time	Received by
Relinquished by	Date	Time	Received by laboratory <i>[Signature]</i>
	Date	Time	Date 11/12/19
			Time 1230 1130

Lab Work No.

R1911087

5

Casella Waste - Hyland
Hyland Facility - Routine Parameters





Cooler Receipt and Preservation Check Form

R1911087

5

Casella Waste - Hyland
Hyland Facility - Routine Parameters



Project/Client Casella Folder Number _____

Cooler received on 11/12/19 by: AD/MS

COURIER: ALS (UPS) FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>
2	Custody papers properly completed (ink, signed)?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
3	Did all bottles arrive in good condition (unbroken)?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
4	Circle: <u>Wet Ice</u> Dry Ice Gel packs present?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>

5a	Perchlorate samples have required headspace?	Y N <input checked="" type="checkbox"/> NA
5b	Did <u>VOA</u> vials, <u>Alk</u> or Sulfide have sig* bubbles?	Y <input checked="" type="checkbox"/> N NA
6	Where did the bottles originate?	<u>ALS/ROC</u> CLIENT
7	Soil VOA received as: Bulk Encore 5035set	<input checked="" type="checkbox"/> NA

8. Temperature Readings Date: 11/12/19 Time: 11:31 ID: IR#7 (R#10) From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>2.7</u>	<u>2.7</u>						
Within 0-6°C?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule
& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R002 by e on 11/12/19 at 11:34
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 11/12/19 Time: 14:05 by: DLW

- 9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
- 10. Did all bottle labels and tags agree with custody papers? YES NO
- 11. Were correct containers used for the tests indicated? YES NO
- 12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO
- 13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated N/A

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
≤2	<u>250018</u>	HNO ₃	<input checked="" type="checkbox"/>		<u>1118081</u>	<u>10/20</u>				
≤2	<u>↓</u>	H ₂ SO ₄	<input checked="" type="checkbox"/>		<u>202739</u>	<u>↓</u>				
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**						

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 19-09-03, 061719-1B4C, 060319-2A40, 80419-05
Explain all Discrepancies/ Other Comments:

Recid Outfall 01 TSS - cap off - sample lot sample time missing

HPROD	BULK
HTR	FLDT
SUB	HGFB
ALS	LL3541

Labels secondary reviewed by: DLW
PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



ALS-Environmental
1565 Jefferson Rd, Bldg 300, Suite 360
Rochester, NY 14623
585.288.5380

Client: **Casella/On-Site**
6653 Herdman Rd
Angelica NY. 14709
Project Manager: **Russ Anderson/Jon Brandes**

CHAIN of CUSTODY

Project: **Hyland - Routine Parameters**
Telephone No. 585-593-1824
Email: jonb@on-sitehs.com

Page **7** of **7**

Method of Shipment

UPS

Special Detection Limit/Reporting

PDF to Russ and On-Site, and EDD to On-Site.

Sample I.D.

Lab Sample No.	No. of Containers	Matrix				Prsv.		Sampling Date	Sampling Time	BOD (NP)	Phenols & TOC (H2SO4)	Alkalinity (NP)	NH3, TKN, COD (H2SO4)	T-Metals, Hardness (Routine) (HNO3)	TDS, NO3, Br, Cl, SO4 (NP)									
		Soil	Water	Air	Other	Yes	No																	
<i>Shay Spring-1119</i>	<i>6</i>	<i>X</i>				<i>X</i>	<i>X</i>	<i>11-12-19</i>	<i>1010</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>									
<i>Shay House-1119</i>	<i>6</i>	<i>X</i>				<i>X</i>	<i>X</i>	<i>11-12-19</i>	<i>1030</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>									
<i>Swineford-1119</i>	<i>6</i>	<i>X</i>				<i>X</i>	<i>Y</i>	<i>11-12-19</i>	<i>1110</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>									
<i>Gordon Camp &-1119</i>	<i>6</i>	<i>X</i>				<i>X</i>	<i>X</i>	<i>11-12-19</i>	<i>1150</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>									

R E M A R K S

Sample Received Intact: Yes No Temperature received: Ice No ice

Relinquished by *Kevin Dye / Kevin Dye* Date *11-12-19* Time *1430* Received by (Sign & Print Name) _____
 Relinquished by _____ Date _____ Time _____ Received by _____
 Relinquished by _____ Date _____ Time _____ Received by _____
 Relinquished by _____ Date _____ Time _____ Received by *Shyndee* Date *11/13/19* Time *1240*

Lab Work No.

R1911087
Casella Waste - Hyland
Hyland Facility - Routine Parameters





Cooler Receipt and Preservation Check Form

R1911087

5

Casella Waste - Hyland
Hyland Facility - Routine Parameters



Project/Client Casella Folder Number _____

Cooler received on 11/13/19 by: AO

COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	<input checked="" type="radio"/> Y	<input type="radio"/> N
2	Custody papers properly completed (ink, signed)?	<input checked="" type="radio"/> Y	<input type="radio"/> N
3	Did all bottles arrive in good condition (unbroken)?	<input checked="" type="radio"/> Y	<input type="radio"/> N
4	Circle: <u>Wet Ice</u> Dry Ice Gel packs present?	<input checked="" type="radio"/> Y	<input type="radio"/> N

5a	Perchlorate samples have required headspace?	<input type="radio"/> Y	<input type="radio"/> N	<input checked="" type="radio"/> NA
5b	Did VOA vials, Alk or Sulfide have sig* bubbles?	<input type="radio"/> Y	<input checked="" type="radio"/> N	<input type="radio"/> NA
6	Where did the bottles originate?	<u>ALS/ROC</u> CLIENT		
7	Soil VOA received as:	Bulk	Encore	5035set <input checked="" type="radio"/> NA

8. Temperature Readings Date: 11/13/19 Time: 1246 ID: IR#7 IR#10 From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>2.9</u>							
Within 0-6°C?	<input checked="" type="radio"/> Y	<input type="radio"/> N	<input type="radio"/> Y	<input type="radio"/> N	<input type="radio"/> Y	<input type="radio"/> N	<input type="radio"/> Y	<input type="radio"/> N
If <0°C, were samples frozen?	<input type="radio"/> Y	<input type="radio"/> N	<input type="radio"/> Y	<input type="radio"/> N	<input type="radio"/> Y	<input type="radio"/> N	<input type="radio"/> Y	<input type="radio"/> N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule
& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by AO on 11/13/19 at 1230
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 11/13/19 Time: 1745 by: SW

- 9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
- 10. Did all bottle labels and tags agree with custody papers? YES NO
- 11. Were correct containers used for the tests indicated? YES NO
- 12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO
- 13. Air Samples: Cassettes / Tubes Intact with MS? YES NO Canisters Pressurized YES NO Tedlar® Bags Inflated YES NO

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
≤2	<u>230018</u>	HNO ₃	<input checked="" type="checkbox"/>		<u>1118081</u>	<u>10/20</u>				
≤2	<u>↓</u>	H ₂ SO ₄	<input checked="" type="checkbox"/>		<u>202739</u>	<u>↓</u>				
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If+, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**						

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 80819-02, 19-09-03, 093019-13MC, 082619-2440
Explain all Discrepancies/ Other Comments: _____

HPROD	BULK
HTR	FLDT
SUB	HGFB
ALS	LL3541

Labels secondary reviewed by: AL
PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



Miscellaneous Forms

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
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REPORT QUALIFIERS AND DEFINITIONS

<p>U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p>J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).</p> <p>B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p>E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p>E Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p>D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p>* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p>H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p># Spike was diluted out.</p>	<p>+ Correlation coefficient for MSA is <0.995.</p> <p>N Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p>N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p>S Concentration has been determined using Method of Standard Additions (MSA).</p> <p>W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.</p> <p>P Concentration >40% difference between the two GC columns.</p> <p>C Confirmed by GC/MS</p> <p>Q DoD reports: indicates a pesticide/Aroclor is not confirmed ($\times 100\%$ Difference between two GC columns).</p> <p>X See Case Narrative for discussion.</p> <p>MRL Method Reporting Limit. Also known as:</p> <p>LOQ Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p>MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p>LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p>ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p>
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Rochester Lab ID # for State Certifications¹

Connecticut ID # PH0556	Maine ID #NY0032	Pennsylvania ID# 68-786
Delaware Approved	New Hampshire ID # 2941	Rhode Island ID # 158
DoD ELAP #65817	New York ID # 10145	Virginia #460167
Florida ID # E87674	North Carolina #676	

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
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Analyst Summary report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters/

Service Request: R1911087

Sample Name: DB3-1119
Lab Code: R1911087-001
Sample Matrix: Water

Date Collected: 11/11/19
Date Received: 11/12/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		GNITAJOUPPI
351.2	NSMITH	GNITAJOUPPI
410.4		STALARICO
6010C	AKONZEL	KMCLAEN
9056A		KWONG
9066		BBOWE
SM 2320 B-1997(2011)		KWONG
SM 2540 C-1997(2011)		KAWONG
SM 5210 B-2001(2011)		NSMITH
SM 5310 C-2000(2011)		SMEDBURY

Sample Name: Goodliff-1119
Lab Code: R1911087-002
Sample Matrix: Water

Date Collected: 11/11/19
Date Received: 11/12/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		GNITAJOUPPI
351.2	NSMITH	GNITAJOUPPI
410.4		STALARICO
6010C	AKONZEL	KMCLAEN
9056A		KWONG
9066		BBOWE
SM 2320 B-1997(2011)		KWONG
SM 2540 C-1997(2011)		KAWONG
SM 5210 B-2001(2011)		NSMITH
SM 5310 C-2000(2011)		SMEDBURY

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters/

Service Request: R1911087

Sample Name: Goodliff Trailer-1119
Lab Code: R1911087-003
Sample Matrix: Water

Date Collected: 11/11/19
Date Received: 11/12/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		GNITAJOUPPI
351.2	NSMITH	GNITAJOUPPI
410.4		STALARICO
6010C	AKONZEL	KMCLAEN
9056A		KWONG
9066		BBOWE
SM 2320 B-1997(2011)		KWONG
SM 2540 C-1997(2011)		KAWONG
SM 5210 B-2001(2011)		NSMITH
SM 5310 C-2000(2011)		SMEDBURY

Sample Name: Hutchesons-1119
Lab Code: R1911087-004
Sample Matrix: Water

Date Collected: 11/11/19
Date Received: 11/12/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		GNITAJOUPPI
351.2	NSMITH	GNITAJOUPPI
410.4		STALARICO
6010C	AKONZEL	KMCLAEN
9056A		KWONG
9066		BBOWE
SM 2320 B-1997(2011)		KWONG
SM 2540 C-1997(2011)		KAWONG
SM 5210 B-2001(2011)		NSMITH
SM 5310 C-2000(2011)		SMEDBURY

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters/

Service Request: R1911087

Sample Name: MW40A-1119
Lab Code: R1911087-005
Sample Matrix: Water

Date Collected: 11/11/19
Date Received: 11/12/19

Analysis Method
SM 5210 B-2001(2011)

Extracted/Digested By

Analyzed By
NSMITH

Sample Name: MW36A-1119
Lab Code: R1911087-006
Sample Matrix: Water

Date Collected: 11/11/19
Date Received: 11/12/19

Analysis Method
SM 5210 B-2001(2011)

Extracted/Digested By

Analyzed By
NSMITH

Sample Name: H. Gardon-1119
Lab Code: R1911087-007
Sample Matrix: Water

Date Collected: 11/11/19
Date Received: 11/12/19

Analysis Method

350.1
351.2
410.4
6010C
9056A
9066
SM 2320 B-1997(2011)
SM 2540 C-1997(2011)
SM 5210 B-2001(2011)
SM 5310 C-2000(2011)

Extracted/Digested By

NSMITH
AKONZEL

Analyzed By
GNITAJOUPPI
GNITAJOUPPI
STALARICO
KMCLAEN
KWONG
BBOWE
KWONG
KAWONG
NSMITH
SMEDBURY

Sample Name: Shay Spring-1119
Lab Code: R1911087-008
Sample Matrix: Water

Date Collected: 11/12/19
Date Received: 11/13/19

Analysis Method

350.1

Extracted/Digested By

Analyzed By
GNITAJOUPPI

ALS Group USA, Corp.
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Analyst Summary report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters/

Service Request: R1911087

Sample Name: Shay Spring-1119
Lab Code: R1911087-008
Sample Matrix: Water

Date Collected: 11/12/19
Date Received: 11/13/19

Analysis Method	Extracted/Digested By	Analyzed By
351.2	NSMITH	CWOODS
410.4		SMEDBURY
6010C	AKONZEL	KMCLAEN
9056A		KWONG
9066		BBOWE
SM 2320 B-1997(2011)		STALARICO
SM 2540 C-1997(2011)		KAWONG
SM 5210 B-2001(2011)		KMENGs
SM 5310 C-2000(2011)		SMEDBURY

Sample Name: Shay House-1119
Lab Code: R1911087-009
Sample Matrix: Water

Date Collected: 11/12/19
Date Received: 11/13/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		GNITAJOUPPI
351.2	NSMITH	CWOODS
410.4		SMEDBURY
6010C	AKONZEL	KMCLAEN
9056A		KWONG
9066		BBOWE
SM 2320 B-1997(2011)		STALARICO
SM 2540 C-1997(2011)		KAWONG
SM 5210 B-2001(2011)		KMENGs
SM 5310 C-2000(2011)		SMEDBURY

Sample Name: Swineford-1119
Lab Code: R1911087-010
Sample Matrix: Water

Date Collected: 11/12/19
Date Received: 11/13/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		GNITAJOUPPI

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters/

Service Request: R1911087

Sample Name: Swineford-1119
Lab Code: R1911087-010
Sample Matrix: Water

Date Collected: 11/12/19
Date Received: 11/13/19

Analysis Method	Extracted/Digested By	Analyzed By
351.2	NSMITH	CWOODS
410.4		SMEDBURY
6010C	AKONZEL	KMCLAEN
9056A		KWONG
9066		BBOWE
SM 2320 B-1997(2011)		STALARICO
SM 2540 C-1997(2011)		KAWONG
SM 5210 B-2001(2011)		KMENGs
SM 5310 C-2000(2011)		SMEDBURY

Sample Name: Gordon Camp 2-1119
Lab Code: R1911087-011
Sample Matrix: Water

Date Collected: 11/12/19
Date Received: 11/13/19

Analysis Method	Extracted/Digested By	Analyzed By
350.1		GNITAJOUPPI
351.2	NSMITH	CWOODS
410.4		SMEDBURY
6010C	AKONZEL	KMCLAEN
9056A		KWONG
9066		BBOWE
SM 2320 B-1997(2011)		STALARICO
SM 2540 C-1997(2011)		KAWONG
SM 5210 B-2001(2011)		KMENGs
SM 5310 C-2000(2011)		SMEDBURY



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.



Sample Results

ALS Environmental—Rochester Laboratory
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Metals

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1911087
Date Collected: 11/11/19 09:25
Date Received: 11/12/19 11:30

Sample Name: DB3-1119
Lab Code: R1911087-001

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/15/19 20:49	11/14/19	
Calcium, Total	6010C	42300	ug/L	1000	300	1	11/15/19 20:49	11/14/19	
Iron, Total	6010C	4330	ug/L	100	20	1	11/15/19 20:49	11/14/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/15/19 20:49	11/14/19	
Magnesium, Total	6010C	10300	ug/L	1000	30	1	11/15/19 20:49	11/14/19	
Manganese, Total	6010C	129	ug/L	10	4	1	11/15/19 20:49	11/14/19	
Potassium, Total	6010C	5700	ug/L	2000	200	1	11/15/19 20:49	11/14/19	
Sodium, Total	6010C	3800	ug/L	1000	200	1	11/15/19 20:49	11/14/19	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1911087
Date Collected: 11/11/19 10:00
Date Received: 11/12/19 11:30

Sample Name: Goodliff-1119
Lab Code: R1911087-002

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/15/19 20:52	11/14/19	
Calcium, Total	6010C	89600	ug/L	1000	300	1	11/15/19 20:52	11/14/19	
Iron, Total	6010C	110 B	ug/L	100	20	1	11/15/19 20:52	11/14/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/15/19 20:52	11/14/19	
Magnesium, Total	6010C	29500	ug/L	1000	30	1	11/15/19 20:52	11/14/19	
Manganese, Total	6010C	145	ug/L	10	4	1	11/15/19 20:52	11/14/19	
Potassium, Total	6010C	2100	ug/L	2000	200	1	11/15/19 20:52	11/14/19	
Sodium, Total	6010C	32500	ug/L	1000	200	1	11/15/19 20:52	11/14/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1911087
Date Collected: 11/11/19 10:45
Date Received: 11/12/19 11:30

Sample Name: Goodliff Trailer-1119
Lab Code: R1911087-003

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	0.6 J	ug/L	5.0	0.4	1	11/15/19 20:55	11/14/19	
Calcium, Total	6010C	9600	ug/L	1000	300	1	11/15/19 20:55	11/14/19	
Iron, Total	6010C	1860	ug/L	100	20	1	11/15/19 20:55	11/14/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/15/19 20:55	11/14/19	
Magnesium, Total	6010C	20900	ug/L	1000	30	1	11/15/19 20:55	11/14/19	
Manganese, Total	6010C	14	ug/L	10	4	1	11/15/19 20:55	11/14/19	
Potassium, Total	6010C	3400	ug/L	2000	200	1	11/15/19 20:55	11/14/19	
Sodium, Total	6010C	39800	ug/L	1000	200	1	11/15/19 20:55	11/14/19	

ALS Group USA, Corp.
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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1911087
Date Collected: 11/11/19 11:30
Date Received: 11/12/19 11:30

Sample Name: Hutchesons-1119
Lab Code: R1911087-004

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/15/19 21:05	11/14/19	
Calcium, Total	6010C	19100	ug/L	1000	300	1	11/15/19 21:05	11/14/19	
Iron, Total	6010C	1410	ug/L	100	20	1	11/15/19 21:05	11/14/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/15/19 21:05	11/14/19	
Magnesium, Total	6010C	6400	ug/L	1000	30	1	11/15/19 21:05	11/14/19	
Manganese, Total	6010C	80	ug/L	10	4	1	11/15/19 21:05	11/14/19	
Potassium, Total	6010C	1200 J	ug/L	2000	200	1	11/15/19 21:05	11/14/19	
Sodium, Total	6010C	248000	ug/L	10000	2000	10	11/18/19 18:25	11/14/19	

ALS Group USA, Corp.
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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1911087
Date Collected: 11/11/19 14:00
Date Received: 11/12/19 11:30

Sample Name: H. Gardon-1119
Lab Code: R1911087-007

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/15/19 21:08	11/14/19	
Calcium, Total	6010C	76100	ug/L	1000	300	1	11/15/19 21:08	11/14/19	
Iron, Total	6010C	100 U	ug/L	100	20	1	11/15/19 21:08	11/14/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/15/19 21:08	11/14/19	
Magnesium, Total	6010C	20300	ug/L	1000	30	1	11/15/19 21:08	11/14/19	
Manganese, Total	6010C	10 U	ug/L	10	4	1	11/15/19 21:08	11/14/19	
Potassium, Total	6010C	2700	ug/L	2000	200	1	11/15/19 21:08	11/14/19	
Sodium, Total	6010C	10600	ug/L	1000	200	1	11/15/19 21:08	11/14/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1911087
Date Collected: 11/12/19 10:10
Date Received: 11/13/19 12:40

Sample Name: Shay Spring-1119
Lab Code: R1911087-008

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/15/19 21:12	11/14/19	
Calcium, Total	6010C	57500	ug/L	1000	300	1	11/15/19 21:12	11/14/19	
Iron, Total	6010C	20 BJ	ug/L	100	20	1	11/15/19 21:12	11/14/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/15/19 21:12	11/14/19	
Magnesium, Total	6010C	14700	ug/L	1000	30	1	11/15/19 21:12	11/14/19	
Manganese, Total	6010C	10 U	ug/L	10	4	1	11/15/19 21:12	11/14/19	
Potassium, Total	6010C	1700 J	ug/L	2000	200	1	11/15/19 21:12	11/14/19	
Sodium, Total	6010C	23400	ug/L	1000	200	1	11/15/19 21:12	11/14/19	

ALS Group USA, Corp.
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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1911087
Date Collected: 11/12/19 10:30
Date Received: 11/13/19 12:40

Sample Name: Shay House-1119
Lab Code: R1911087-009

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/15/19 21:15	11/14/19	
Calcium, Total	6010C	1000 U	ug/L	1000	300	1	11/15/19 21:15	11/14/19	
Iron, Total	6010C	20 BJ	ug/L	100	20	1	11/15/19 21:15	11/14/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/15/19 21:15	11/14/19	
Magnesium, Total	6010C	30 J	ug/L	1000	30	1	11/15/19 21:15	11/14/19	
Manganese, Total	6010C	10 U	ug/L	10	4	1	11/15/19 21:15	11/14/19	
Potassium, Total	6010C	300 J	ug/L	2000	200	1	11/15/19 21:15	11/14/19	
Sodium, Total	6010C	116000	ug/L	1000	200	1	11/15/19 21:15	11/14/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1911087
Date Collected: 11/12/19 11:10
Date Received: 11/13/19 12:40

Sample Name: Swineford-1119
Lab Code: R1911087-010

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/15/19 21:18	11/14/19	
Calcium, Total	6010C	24500	ug/L	1000	300	1	11/15/19 21:18	11/14/19	
Iron, Total	6010C	30 BJ	ug/L	100	20	1	11/15/19 21:18	11/14/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/15/19 21:18	11/14/19	
Magnesium, Total	6010C	6300	ug/L	1000	30	1	11/15/19 21:18	11/14/19	
Manganese, Total	6010C	6 J	ug/L	10	4	1	11/15/19 21:18	11/14/19	
Potassium, Total	6010C	5300	ug/L	2000	200	1	11/15/19 21:18	11/14/19	
Sodium, Total	6010C	5900	ug/L	1000	200	1	11/15/19 21:18	11/14/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1911087
Date Collected: 11/12/19 11:50
Date Received: 11/13/19 12:40

Sample Name: Gordon Camp 2-1119
Lab Code: R1911087-011

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/15/19 21:21	11/14/19	
Calcium, Total	6010C	78200	ug/L	1000	300	1	11/15/19 21:21	11/14/19	
Iron, Total	6010C	2360	ug/L	100	20	1	11/15/19 21:21	11/14/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/15/19 21:21	11/14/19	
Magnesium, Total	6010C	26000	ug/L	1000	30	1	11/15/19 21:21	11/14/19	
Manganese, Total	6010C	157	ug/L	10	4	1	11/15/19 21:21	11/14/19	
Potassium, Total	6010C	2100	ug/L	2000	200	1	11/15/19 21:21	11/14/19	
Sodium, Total	6010C	22300	ug/L	1000	200	1	11/15/19 21:21	11/14/19	



General Chemistry

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: DB3-1119
Lab Code: R1911087-001

Service Request: R1911087
Date Collected: 11/11/19 09:25
Date Received: 11/12/19 11:30
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date</u> <u>Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	92.0	mg/L	2.0	1.8	1	11/13/19 03:05	NA	
Ammonia as Nitrogen, undistilled	350.1	0.107	mg/L	0.050	0.003	1	11/13/19 20:28	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/13/19 09:13	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/12/19 13:37	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	3.2	mg/L	1.0	0.5	1	11/16/19 01:21	NA	
Chemical Oxygen Demand, Total	410.4	11.5	mg/L	5.0	3.8	1	11/13/19 14:00	NA	
Chloride	9056A	4.9	mg/L	2.0	0.5	10	11/12/19 13:37	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	148	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	0.7 J	mg/L	1.0	0.2	10	11/12/19 13:37	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.62	mg/L	0.20	0.10	1	11/13/19 17:34	11/12/19	
Phenolics, Total Recoverable	9066	0.0016 J	mg/L	0.0050	0.0010	1	11/19/19 00:34	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	227	mg/L	10	9	1	11/14/19 09:15	NA	
Sulfate	9056A	55.6	mg/L	2.0	0.4	10	11/12/19 13:37	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: Goodliff-1119
Lab Code: R1911087-002

Service Request: R1911087
Date Collected: 11/11/19 10:00
Date Received: 11/12/19 11:30
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	251	mg/L	2.0	1.8	1	11/13/19 03:11	NA	
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.003	1	11/13/19 20:29	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/13/19 09:14	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/12/19 13:43	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.2	mg/L	1.0	0.5	1	11/16/19 01:42	NA	
Chemical Oxygen Demand, Total	410.4	9.5	mg/L	5.0	3.8	1	11/13/19 14:00	NA	
Chloride	9056A	3.6	mg/L	2.0	0.5	10	11/12/19 13:43	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	345	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	0.4 J	mg/L	1.0	0.2	10	11/12/19 13:43	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20 U	mg/L	0.20	0.10	1	11/13/19 17:34	11/12/19	
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.0010	1	11/19/19 00:39	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	486	mg/L	10	9	1	11/14/19 09:15	NA	
Sulfate	9056A	136	mg/L	4.0	0.8	20	11/12/19 16:02	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: Goodliff Trailer-1119
Lab Code: R1911087-003

Service Request: R1911087
Date Collected: 11/11/19 10:45
Date Received: 11/12/19 11:30
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	186	mg/L	2.0	1.8	1	11/13/19 03:17	NA	
Ammonia as Nitrogen, undistilled	350.1	0.217	mg/L	0.050	0.003	1	11/13/19 20:30	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.1	mg/L	2.0	-	1	11/13/19 09:06	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/12/19 13:49	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.6	mg/L	1.0	0.5	1	11/16/19 03:26	NA	
Chemical Oxygen Demand, Total	410.4	10.8	mg/L	5.0	3.8	1	11/13/19 14:00	NA	
Chloride	9056A	3.3	mg/L	2.0	0.5	10	11/12/19 13:49	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	110	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	0.4 J	mg/L	1.0	0.2	10	11/12/19 13:49	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.38	mg/L	0.20	0.10	1	11/13/19 17:35	11/12/19	
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.0010	1	11/19/19 00:43	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	198	mg/L	10	9	1	11/14/19 09:15	NA	
Sulfate	9056A	2.0 U	mg/L	2.0	0.4	10	11/12/19 13:49	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: Hutchesons-1119
Lab Code: R1911087-004

Service Request: R1911087
Date Collected: 11/11/19 11:30
Date Received: 11/12/19 11:30
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	344	mg/L	2.0	1.8	1	11/13/19 03:23	NA	
Ammonia as Nitrogen, undistilled	350.1	0.221	mg/L	0.050	0.003	1	11/13/19 20:31	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/13/19 09:12	NA	
Bromide	9056A	2.2	mg/L	1.0	0.4	10	11/12/19 14:07	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	0.6 J	mg/L	1.0	0.5	1	11/16/19 03:47	NA	
Chemical Oxygen Demand, Total	410.4	4.6 J	mg/L	5.0	3.8	1	11/13/19 14:00	NA	
Chloride	9056A	171	mg/L	4.0	0.9	20	11/12/19 16:08	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	74.3	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	0.2	10	11/12/19 14:07	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.28	mg/L	0.20	0.10	1	11/13/19 17:39	11/12/19	
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.0010	1	11/19/19 00:47	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	711	mg/L	10	9	1	11/14/19 09:15	NA	
Sulfate	9056A	23.1	mg/L	2.0	0.4	10	11/12/19 14:07	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: MW40A-1119
Lab Code: R1911087-005

Service Request: R1911087
Date Collected: 11/11/19 12:20
Date Received: 11/12/19 11:30
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	1	11/13/19 09:04	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: MW36A-1119
Lab Code: R1911087-006

Service Request: R1911087
Date Collected: 11/11/19 13:40
Date Received: 11/12/19 11:30
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	1	11/13/19 09:03	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: H. Gardon-1119
Lab Code: R1911087-007

Service Request: R1911087
Date Collected: 11/11/19 14:00
Date Received: 11/12/19 11:30
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	237	mg/L	2.0	1.8	1	11/13/19 03:39	NA	
Ammonia as Nitrogen, undistilled	350.1	0.004 J	mg/L	0.050	0.003	1	11/13/19 20:33	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/13/19 09:10	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/12/19 14:15	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	0.5	1	11/16/19 04:08	NA	
Chemical Oxygen Demand, Total	410.4	4.9 J	mg/L	5.0	3.8	1	11/13/19 14:00	NA	
Chloride	9056A	3.5	mg/L	2.0	0.5	10	11/12/19 14:15	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	273	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	0.2	10	11/12/19 14:15	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.17 J	mg/L	0.20	0.10	1	11/13/19 17:40	11/12/19	
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.0010	1	11/19/19 00:51	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	329	mg/L	10	9	1	11/14/19 09:15	NA	
Sulfate	9056A	47.6	mg/L	2.0	0.4	10	11/12/19 14:15	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: Shay Spring-1119
Lab Code: R1911087-008

Service Request: R1911087
Date Collected: 11/12/19 10:10
Date Received: 11/13/19 12:40

Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	121	mg/L	2.0	1.8	1	11/15/19 14:11	NA	
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.003	1	11/15/19 22:10	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/14/19 06:13	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/13/19 18:14	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	0.5	1	11/16/19 04:50	NA	
Chemical Oxygen Demand, Total	410.4	5.0 U	mg/L	5.0	3.8	1	11/16/19 14:20	NA	
Chloride	9056A	85.1	mg/L	2.0	0.5	10	11/13/19 18:14	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	204	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	0.4 J	mg/L	1.0	0.2	10	11/13/19 18:14	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.14 J	mg/L	0.20	0.10	1	11/15/19 15:30	11/14/19	
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.0010	1	11/19/19 00:55	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	294	mg/L	10	9	1	11/14/19 09:15	NA	
Sulfate	9056A	18.0	mg/L	2.0	0.4	10	11/13/19 18:14	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: Shay House-1119
Lab Code: R1911087-009

Service Request: R1911087
Date Collected: 11/12/19 10:30
Date Received: 11/13/19 12:40
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date</u> <u>Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	127	mg/L	2.0	1.8	1	11/15/19 14:19	NA	
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.003	1	11/15/19 22:12	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/14/19 06:05	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/13/19 18:32	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	0.5	1	11/16/19 05:10	NA	
Chemical Oxygen Demand, Total	410.4	5.0 U	mg/L	5.0	3.8	1	11/16/19 14:20	NA	
Chloride	9056A	85.9	mg/L	2.0	0.5	10	11/13/19 18:32	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	6.62 U	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	0.4 J	mg/L	1.0	0.2	10	11/13/19 18:32	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20 U	mg/L	0.20	0.10	1	11/15/19 15:31	11/14/19	
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.0010	1	11/19/19 00:59	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	330	mg/L	10	9	1	11/14/19 09:15	NA	
Sulfate	9056A	18.2	mg/L	2.0	0.4	10	11/13/19 18:32	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: Swineford-1119
Lab Code: R1911087-010

Service Request: R1911087
Date Collected: 11/12/19 11:10
Date Received: 11/13/19 12:40
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	68.4	mg/L	2.0	1.8	1	11/15/19 14:37	NA	
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.003	1	11/15/19 22:13	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/14/19 06:05	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/13/19 18:38	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	0.5 J	mg/L	1.0	0.5	1	11/16/19 05:31	NA	
Chemical Oxygen Demand, Total	410.4	5.0 U	mg/L	5.0	3.8	1	11/16/19 14:20	NA	
Chloride	9056A	6.8	mg/L	2.0	0.5	10	11/13/19 18:38	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	87.1	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	2.0	mg/L	1.0	0.2	10	11/13/19 18:38	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.14 J	mg/L	0.20	0.10	1	11/15/19 15:32	11/14/19	
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.0010	1	11/19/19 01:03	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	136	mg/L	10	9	1	11/14/19 09:15	NA	
Sulfate	9056A	20.3	mg/L	2.0	0.4	10	11/13/19 18:38	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: Gordon Camp 2-1119
Lab Code: R1911087-011

Service Request: R1911087
Date Collected: 11/12/19 11:50
Date Received: 11/13/19 12:40
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	270	mg/L	2.0	1.8	1	11/15/19 14:44	NA	
Ammonia as Nitrogen, undistilled	350.1	0.102	mg/L	0.050	0.003	1	11/15/19 22:14	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/14/19 06:04	NA	
Bromide	9056A	1.0 U	mg/L	1.0	0.4	10	11/13/19 18:56	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	0.5	1	11/16/19 05:52	NA	
Chemical Oxygen Demand, Total	410.4	5.0 U	mg/L	5.0	3.8	1	11/16/19 14:20	NA	
Chloride	9056A	2.3	mg/L	2.0	0.5	10	11/13/19 18:56	NA	
Hardness, Total as CaCO3	SM 2340 B-1997(2011)	302	mg/L	6.62	-	1	NA	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	0.2	10	11/13/19 18:56	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20 U	mg/L	0.20	0.10	1	11/15/19 15:32	11/14/19	
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.0010	1	11/19/19 01:22	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	372	mg/L	10	9	1	11/14/19 09:15	NA	
Sulfate	9056A	60.3	mg/L	2.0	0.4	10	11/13/19 18:56	NA	



QC Summary Forms

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Metals

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Phone (585) 288-5380 Fax (585) 288-8475
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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1911087-MB

Service Request: R1911087
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium, Total	6010C	5.0 U	ug/L	5.0	0.4	1	11/15/19 19:47	11/14/19	
Calcium, Total	6010C	1000 U	ug/L	1000	300	1	11/15/19 19:47	11/14/19	
Iron, Total	6010C	80 J	ug/L	100	20	1	11/15/19 19:47	11/14/19	
Lead, Total	6010C	50 U	ug/L	50	3	1	11/15/19 19:47	11/14/19	
Magnesium, Total	6010C	1000 U	ug/L	1000	30	1	11/15/19 19:47	11/14/19	
Manganese, Total	6010C	10 U	ug/L	10	4	1	11/15/19 19:47	11/14/19	
Potassium, Total	6010C	2000 U	ug/L	2000	200	1	11/15/19 19:47	11/14/19	
Sodium, Total	6010C	1000 U	ug/L	1000	200	1	11/15/19 19:47	11/14/19	

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QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1911087

Date Analyzed: 11/15/19

Lab Control Sample Summary
Inorganic Parameters

Units:ug/L

Basis:NA

Lab Control Sample
R1911087-LCS

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Cadmium, Total	6010C	50.2	50.0	100	80-120
Calcium, Total	6010C	1740	2000	87	80-120
Iron, Total	6010C	1000	1000	100	80-120
Lead, Total	6010C	499	500	100	80-120
Magnesium, Total	6010C	1950	2000	97	80-120
Manganese, Total	6010C	500	500	100	80-120
Potassium, Total	6010C	19200	20000	96	80-120
Sodium, Total	6010C	20100	20000	101	80-120



General Chemistry

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1911087-MB1

Service Request: R1911087
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	2.0 U	mg/L	2.0	1.8	1	11/13/19 01:12	NA	
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.003	1	11/13/19 19:57	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/13/19 18:00	NA	
Bromide	9056A	0.10 U	mg/L	0.10	0.04	1	11/12/19 11:38	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	0.5	1	11/15/19 18:02	NA	
Chemical Oxygen Demand, Total	410.4	5.0 U	mg/L	5.0	3.8	1	11/13/19 14:00	NA	
Chloride	9056A	0.20 U	mg/L	0.20	0.05	1	11/12/19 11:38	NA	
Nitrate as Nitrogen	9056A	0.10 U	mg/L	0.10	0.02	1	11/12/19 11:38	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20 U	mg/L	0.20	0.1	1	11/13/19 17:24	11/12/19	
Phenolics, Total Recoverable	9066	0.0050 U	mg/L	0.0050	0.001	1	11/18/19 23:18	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	10 U	mg/L	10	9	1	11/14/19 09:15	NA	
Sulfate	9056A	0.20 U	mg/L	0.20	0.04	1	11/12/19 11:38	NA	

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Analytical Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1911087-MB2

Service Request: R1911087
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	2.0 U	mg/L	2.0	1.8	1	11/15/19 13:04	NA	
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.003	1	11/15/19 21:54	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0 U	mg/L	2.0	-	1	11/14/19 13:24	NA	
Bromide	9056A	0.10 U	mg/L	0.10	0.04	1	11/13/19 16:03	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	0.5	1	11/16/19 02:23	NA	
Chemical Oxygen Demand, Total	410.4	5.0 U	mg/L	5.0	3.8	1	11/16/19 14:20	NA	
Chloride	9056A	0.20 U	mg/L	0.20	0.05	1	11/13/19 16:03	NA	
Nitrate as Nitrogen	9056A	0.10 U	mg/L	0.10	0.02	1	11/13/19 16:03	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20 U	mg/L	0.20	0.1	1	11/15/19 17:18	11/14/19	
Sulfate	9056A	0.20 U	mg/L	0.20	0.04	1	11/13/19 16:03	NA	

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QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1911087
Date Collected: 11/11/19
Date Received: 11/12/19
Date Analyzed: 11/16/19

Duplicate Matrix Spike Summary
Carbon, Total Organic (TOC)

Sample Name: Goodliff-1119
Lab Code: R1911087-002
Analysis Method: SM 5310 C-2000(2011)

Units: mg/L
Basis: NA

Analyte Name	Sample Result	Matrix Spike R1911087-002MS			Duplicate Matrix Spike R1911087-002DMS			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Carbon, Total Organic (TOC)	1.2	11.3	10.0	101	12.0	10.0	108	48-135	6	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
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QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1911087
Date Collected: 11/12/19
Date Received: 11/13/19
Date Analyzed: 11/13/19 - 11/16/19

Duplicate Matrix Spike Summary
General Chemistry Parameters

Sample Name: Swineford-1119
Lab Code: R1911087-010

Units: mg/L
Basis: NA

Matrix Spike
R1911087-010MS

Duplicate Matrix Spike
R1911087-010DMS

Analyte Name	Method	Sample		Spike		Spike		% Rec	Limits	RPD	RPD Limit
		Result	Result	Amount	% Rec	Result	Amount				
Bromide	9056A	1.0 U	9.8	10.0	98	9.9	10.0	99	80-120	1	15
Chloride	9056A	6.8	27.0	20.0	101	27.0	20.0	101	80-120	<1	15
Chemical Oxygen Demand, Total	410.4	5.0 U	25.4	25.0	102	25.1	25.0	100	90-110	1	20
Sulfate	9056A	20.3	40.3	20.0	100	39.7	20.0	97	80-120	1	15
Nitrate as Nitrogen	9056A	2.0	12.1	10.0	100	12.2	10.0	101	80-120	<1	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

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QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1911087
Date Collected: 11/11/19
Date Received: 11/12/19
Date Analyzed: 11/13/19

Replicate Sample Summary
General Chemistry Parameters

Sample Name: H. Gardon-1119
Lab Code: R1911087-007

Units: mg/L
Basis: NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate Sample R1911087-007DUP Result	Average	RPD	RPD Limit
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	2.0	1.8	237	237	237	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
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QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1911087
Date Analyzed: 11/12/19 - 11/18/19

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R1911087-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	18.8	20.0	94	80-120
Ammonia as Nitrogen, undistilled	350.1	0.254	0.250	102	90-110
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	178	198	90	85-115
Bromide	9056A	1.03	1.00	103	80-120
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	10.2	10.0	102	80-121
Chemical Oxygen Demand, Total	410.4	54.9	50.0	110	90-110
Chloride	9056A	2.07	2.00	103	80-120
Nitrate as Nitrogen	9056A	1.03	1.00	103	80-120
Nitrogen, Total Kjeldahl (TKN)	351.2	2.48	2.50	99	90-110
Phenolics, Total Recoverable	9066	0.0390	0.0400	97	85-115
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	920	914	101	90-110
Sulfate	9056A	2.01	2.00	101	80-120

ALS Group USA, Corp.
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QA/QC Report

Client: Casella Waste Systems (Hampden ME)
Project: Hyland Facility - Routine Parameters
Sample Matrix: Water

Service Request: R1911087
Date Analyzed: 11/13/19 - 11/16/19

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R1911087-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Alkalinity, Total as CaCO ₃	SM 2320 B-1997(2011)	18.8	20.0	94	80-120
Ammonia as Nitrogen, undistilled	350.1	0.239	0.250	95	90-110
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	172	198	87	85-115
Bromide	9056A	1.01	1.00	101	80-120
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	10.4	10.0	104	80-121
Chemical Oxygen Demand, Total	410.4	48.7	50.0	97	90-110
Chloride	9056A	2.01	2.00	101	80-120
Nitrate as Nitrogen	9056A	1.01	1.00	101	80-120
Nitrogen, Total Kjeldahl (TKN)	351.2	2.33	2.50	93	90-110
Sulfate	9056A	1.98	2.00	99	80-120

ATTACHMENT 3 – WASTE ORIGIN

Waste Origin for 4th Quarter 2019

RpOrgWs.rpt

Hyland Facility Associates
Origin/Material Report

Origin: All

Transactions from 10/01/2019 through 10/31/2019
Inbound Tickets Only
Third Party and Intercompany Customers
Recycle and Disposal Material
Material Summary

	Bill Units	Cubic Yards	Tons	Est Tons
ALL - ALLEGANY / NY				
CO - CLEAN OUT SERVICE <i>1 ticket and 1 transaction</i>	1.00 U	0.00	0.00	0.00
6534 - I/C PLANT TRASH 6534 <i>5 tickets and 5 transactions</i>	12.62 T	0.00	12.62	0.00
6535 - I/C PLANT TRASH 6535 <i>2 tickets and 2 transactions</i>	6.19 T	0.00	6.19	0.00
6645 - MIXED PLANT TRASH 6645 <i>9 tickets and 9 transactions</i>	55.89 T	0.00	55.89	0.00
6646 - MIXED PLANT TRASH 6646 <i>1 ticket and 1 transaction</i>	5.62 T	0.00	5.62	0.00
BAFA - BAGGED FRIABLE ASBESTOS <i>5 tickets and 5 transactions</i>	23.11 T	0.00	23.11	0.00
BDCS - BUD CONTAMINATED SOIL <i>6 tickets and 6 transactions</i>	140.02 T	0.00	140.02	0.00
CD - CONSTRUCTION DEBRIS <i>58 tickets and 58 transactions</i>	169.90 T	0.00	169.90	0.00
ICAW - I/C Allegany Cty Waste <i>6 tickets and 6 transactions</i>	19.12 T	0.00	19.12	0.00

ICCD - I-C CONSTRUCTION DEBRIS <i>9 tickets and 9 transactions</i>	32.18 T	0.00	32.18	0.00
ICMS - I-C MSW <i>1 ticket and 1 transaction</i>	19.28 T	0.00	19.28	0.00
ICMX - I-C MSW & CD MIXED TRASH <i>1 ticket and 1 transaction</i>	0.81 T	0.00	0.81	0.00
ICSD - I/C SAPUTO DAIRY TRASH <i>13 tickets and 13 transactions</i>	67.86 T	0.00	67.86	0.00
MS - MSW <i>118 tickets and 118 transactions</i>	1,060.91 T	0.00	1,060.91	0.00
MSSL - INDUSTRIAL SOLIDIFICATION <i>3 tickets and 3 transactions</i>	23.63 T	0.00	23.63	0.00
MX - MSW & MIXED TRASH <i>4 tickets and 4 transactions</i>	2.79 T	0.00	2.79	0.00
VWSL - 331 WWTP SLUDGE <i>4 tickets and 4 transactions</i>	55.42 T	0.00	55.42	0.00
ALL - ALLEGANY / NY <i>245 tickets and 246 transactions</i>		<hr/> 0.00	<hr/> 1,695.35	<hr/> 0.00
BRON - BRONX / NY				
CDAD - CONSTRUCTION DEBRIS (BUD ADC) <i>24 tickets and 24 transactions</i>	848.36 T	0.00	848.36	0.00
DO - DIG OUT SERVICE <i>1 ticket and 1 transaction</i>	1.00 U	0.00	0.00	0.00
MBTI - MBI TIPPER CHARGE <i>20 tickets and 20 transactions</i>	20.00 U	0.00	0.00	0.00
BRON - BRONX / NY <i>24 tickets and 45 transactions</i>		<hr/> 0.00	<hr/> 848.36	<hr/> 0.00
BUR - BURLINGTON/NJ				
MSSL - INDUSTRIAL SOLIDIFICATION <i>1 ticket and 1 transaction</i>	20.34 T	0.00	20.34	0.00
BUR - BURLINGTON/NJ <i>1 ticket and 1 transaction</i>		<hr/> 0.00	<hr/> 20.34	<hr/> 0.00

CAT - CATTARAUGUS / NY

4867 - I/C SAWDUST 4867	5.15 T	0.00	5.15	0.00
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1 ticket and 1 transaction

6090 - I/C PLANT TRASH 6090	3.87 T	0.00	3.87	0.00
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1 ticket and 1 transaction

CD - CONSTRUCTION DEBRIS	20.48 T	0.00	20.48	0.00
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5 tickets and 5 transactions

ICBA - I/C BAGGED FRIABLE ASBESTOS	34.94 T	0.00	34.94	0.00
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5 tickets and 5 transactions

ICCD - I-C CONSTUCTION DEBRIS	2.63 T	0.00	2.63	0.00
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1 ticket and 1 transaction

ICES - 189 INDUSTRIAL / PLANT TRASH	53.37 T	0.00	53.37	0.00
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5 tickets and 5 transactions

ICHA - 188 INDUSTRIAL / PLANT TRASH	10.71 T	0.00	10.71	0.00
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4 tickets and 4 transactions

ICIN - I-C INDUSTRIAL	43.86 T	0.00	43.86	0.00
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4 tickets and 4 transactions

ICLE - 1548 I/C TOBACCO	14.07 T	0.00	14.07	0.00
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*4 tickets and 4 transactions***CAT - CATTARAUGUS / NY**

ICOS - 582 OLEAN WWTP SLUDGE	179.36 T	0.00	179.36	0.00
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13 tickets and 13 transactions

ICTR - I/C Mixed Waste TT	1,011.15 T	0.00	1,011.15	0.00
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36 tickets and 36 transactions

MBTP - I/C MBI TIPPER	27.00 U	0.00	0.00	0.00
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*27 tickets and 27 transactions***CAT - CATTARAUGUS / NY***79 tickets and 106 transactions*

		<u>0.00</u>	<u>1,379.59</u>	<u>0.00</u>
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CHA - CHAUTAUQUA / (NY)

ICTR - I/C Mixed Waste TT	21.46 T	0.00	21.46	0.00
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2 tickets and 2 transactions

MBTP - I/C MBI TIPPER	2.00 U	0.00	0.00	0.00
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*2 tickets and 2 transactions***CHA - CHAUTAUQUA / (NY)***2 tickets and 4 transactions*

		<u>0.00</u>	<u>21.46</u>	<u>0.00</u>
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CHE - CHEMUNG / NY**ICMS - I-C MSW***82 tickets and 82 transactions*

3,084.90 T 0.00 3,084.90 0.00

CHE - CHEMUNG / NY*82 tickets and 82 transactions*

0.00 3,084.90 0.00**CHI - CHITTENDEN / VT****4155 - NON-HAZ LIQUID 4155***6 tickets and 6 transactions*

92.48 T 0.00 92.48 0.00

4217 - NON-HAZ SOLIDS 4217*6 tickets and 6 transactions*

18.81 T 0.00 18.81 0.00

CHI - CHITTENDEN / VT*12 tickets and 12 transactions*

0.00 111.29 0.00**CHNH - CHESHIRE/NH****CHNH - CHESHIRE/NH****4286 - I/C NON HAZ LIQUIDS 4286***1 ticket and 1 transaction*

20.70 T 0.00 20.70 0.00

CHNH - CHESHIRE/NH*1 ticket and 1 transaction*

0.00 20.70 0.00**DEL - DELAWARE / NY****CO - CLEAN OUT SERVICE***2 tickets and 2 transactions*

2.00 U 0.00 0.00 0.00

MSSL - INDUSTRIAL SOLIDIFICATION*3 tickets and 3 transactions*

22.20 T 0.00 22.20 0.00

DEL - DELAWARE / NY*3 tickets and 5 transactions*

0.00 22.20 0.00**DUT - DUTCHESS / NY****ICSL - I/C SLUDGE***5 tickets and 5 transactions*

167.00 T 0.00 167.00 0.00

DUT - DUTCHESS / NY*5 tickets and 5 transactions*

0.00 167.00 0.00

HORN - CITY OF HORNELL

MS - MSW	311.05 T	0.00	311.05	0.00
<i>27 tickets and 27 transactions</i>				

HORN - CITY OF HORNELL*27 tickets and 27 transactions*

0.00	311.05	0.00
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K - KINGS / NY

CD - CONSTRUCTION DEBRIS	534.39 T	0.00	534.39	0.00
<i>16 tickets and 16 transactions</i>				

CDAD - CONSTRUCTION DEBRIS (BUD ADC)	353.82 T	0.00	353.82	0.00
<i>14 tickets and 14 transactions</i>				

MBTI - MBI TIPPER CHARGE	14.00 U	0.00	0.00	0.00
<i>14 tickets and 14 transactions</i>				

K - KINGS / NY*30 tickets and 44 transactions*

0.00	888.21	0.00
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LIV - LIVINGSTON / NY

MX - MSW & MIXED TRASH	230.82 T	0.00	230.82	0.00
<i>22 tickets and 22 transactions</i>				

LIV - LIVINGSTON / NY*22 tickets and 22 transactions*

0.00	230.82	0.00
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NAS - NASSAU

DO - DIG OUT SERVICE	1.00 U	0.00	0.00	0.00
<i>1 ticket and 1 transaction</i>				

ICSL - I/C SLUDGE	156.42 T	0.00	156.42	0.00
<i>4 tickets and 4 transactions</i>				

MBTI - MBI TIPPER CHARGE	33.00 U	0.00	0.00	0.00
<i>33 tickets and 33 transactions</i>				

MS - MSW	1,175.88 T	0.00	1,175.88	0.00
<i>33 tickets and 33 transactions</i>				

NAS - NASSAU*37 tickets and 71 transactions*

0.00	1,332.30	0.00
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O - ORANGE / NY

CDAD - CONSTRUCTION DEBRIS (BUD ADC)	417.43 T	0.00	417.43	0.00
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13 tickets and 13 transactions

DO - DIG OUT SERVICE	3.00 U	0.00	0.00	0.00
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3 tickets and 3 transactions

ICSL - I/C SLUDGE	75.08 T	0.00	75.08	0.00
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2 tickets and 2 transactions

MBTI - MBI TIPPER CHARGE	8.00 U	0.00	0.00	0.00
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8 tickets and 8 transactions

O - ORANGE / NY

15 tickets and 26 transactions

	0.00	492.51	0.00
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ONO - ONONDAGA / NY**ONO - ONONDAGA / NY**

4427 - NON-HAZ LIQUID 4427	23.44 T	0.00	23.44	0.00
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4 tickets and 4 transactions

4966 - OILY TANK BOTTOMS 4966	33.84 T	0.00	33.84	0.00
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3 tickets and 3 transactions

SL - SLUDGE	238.66 T	0.00	238.66	0.00
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7 tickets and 7 transactions

ONO - ONONDAGA / NY

14 tickets and 14 transactions

	0.00	295.94	0.00
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POT - POTTER / PA

ICCP - MSW POTTER COUNTY	127.21 T	0.00	127.21	0.00
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7 tickets and 7 transactions

ICMX - I-C MSW & CD MIXED TRASH	2.94 T	0.00	2.94	0.00
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1 ticket and 1 transaction

MBTP - I/C MBI TIPPER	6.00 U	0.00	0.00	0.00
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6 tickets and 6 transactions

POT - POTTER / PA

8 tickets and 14 transactions

	0.00	130.15	0.00
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Q - QUEENS / NY

CD - CONSTRUCTION DEBRIS	168.97 T	0.00	168.97	0.00
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5 tickets and 5 transactions

CDAD - CONSTRUCTION DEBRIS (BUD ADC) <i>1 ticket and 1 transaction</i>	36.29 T	0.00	36.29	0.00
DO - DIG OUT SERVICE <i>1 ticket and 1 transaction</i>	1.00 U	0.00	0.00	0.00
MBTI - MBI TIPPER CHARGE <i>5 tickets and 5 transactions</i>	5.00 U	0.00	0.00	0.00
Q - QUEENS / NY <i>6 tickets and 12 transactions</i>		0.00	205.26	0.00
RO - ROCKLAND / NY				
MBTI - MBI TIPPER CHARGE <i>25 tickets and 25 transactions</i>	25.00 U	0.00	0.00	0.00
RO - ROCKLAND / NY				
MS - MSW <i>303 tickets and 303 transactions</i>	11,077.29 T	0.00	11,077.29	0.00
RO - ROCKLAND / NY <i>303 tickets and 328 transactions</i>		0.00	11,077.29	0.00
SN - SUFFOLK (NY)				
ICSL - I/C SLUDGE <i>90 tickets and 90 transactions</i>	2,902.46 T	0.00	2,902.46	0.00
MBTI - MBI TIPPER CHARGE <i>14 tickets and 14 transactions</i>	14.00 U	0.00	0.00	0.00
MS - MSW <i>14 tickets and 14 transactions</i>	487.11 T	0.00	487.11	0.00
SN - SUFFOLK (NY) <i>104 tickets and 118 transactions</i>		0.00	3,389.57	0.00
STE - STEUBEN / NY				
CD - CONSTRUCTION DEBRIS <i>75 tickets and 75 transactions</i>	276.97 T	0.00	276.97	0.00
ICTR - I/C Mixed Waste TT <i>46 tickets and 46 transactions</i>	1,724.09 T	0.00	1,724.09	0.00
MS - MSW <i>57 tickets and 57 transactions</i>	482.53 T	0.00	482.53	0.00
STE - STEUBEN / NY <i>178 tickets and 178 transactions</i>		0.00	2,483.59	0.00

SUL - SULLIVAN / NY

BUFA - BULK FRIABLE ASBESTOS	245.61 T	0.00	245.61	0.00
<i>11 tickets and 11 transactions</i>				

CD - CONSTRUCTION DEBRIS	270.64 T	0.00	270.64	0.00
<i>9 tickets and 9 transactions</i>				

CDAD - CONSTRUCTION DEBRIS (BUD ADC)	400.99 T	0.00	400.99	0.00
<i>12 tickets and 12 transactions</i>				

MBTI - MBI TIPPER CHARGE	18.00 U	0.00	0.00	0.00
<i>18 tickets and 18 transactions</i>				

SUL - SULLIVAN / NY		0.00	917.24	0.00
<i>32 tickets and 50 transactions</i>				

SUS - SUSSEX/ NJ

CDAD - CONSTRUCTION DEBRIS (BUD ADC)	109.51 T	0.00	109.51	0.00
<i>5 tickets and 5 transactions</i>				

SUS - SUSSEX/ NJ		0.00	109.51	0.00
<i>5 tickets and 5 transactions</i>				

TI - TIOGA/NY

1730 - ASR BULKING AGENT 1730S	222.47 T	0.00	222.47	0.00
<i>8 tickets and 8 transactions</i>				

UPAS - 1730 AUTO SHREDDER	1,160.72 T	0.00	1,160.72	0.00
<i>42 tickets and 42 transactions</i>				

TI - TIOGA/NY		0.00	1,383.19	0.00
<i>50 tickets and 50 transactions</i>				

TOM - TOMPKINS / NY

CO - CLEAN OUT SERVICE	2.00 U	0.00	0.00	0.00
<i>2 tickets and 2 transactions</i>				

ICMS - I-C MSW	1,858.18 T	0.00	1,858.18	0.00
<i>56 tickets and 56 transactions</i>				

MSSL - INDUSTRIAL SOLIDIFICATION	18.51 T	0.00	18.51	0.00
<i>2 tickets and 2 transactions</i>				

TOM - TOMPKINS / NY		0.00	1,876.69	0.00
<i>58 tickets and 60 transactions</i>				

ULS - ULSTER NY

CDAD - CONSTRUCTION DEBRIS (BUD ADC) 216.40 T 0.00 216.40 0.00
7 tickets and 7 transactions

DO - DIG OUT SERVICE 1.00 U 0.00 0.00 0.00
1 ticket and 1 transaction

MBTI - MBI TIPPER CHARGE 7.00 U 0.00 0.00 0.00
7 tickets and 7 transactions

ULS - ULSTER NY 0.00 216.40 0.00
7 tickets and 15 transactions

WES - WESTCHESTER / NY

CD - CONSTRUCTION DEBRIS 429.80 T 0.00 429.80 0.00
12 tickets and 12 transactions

ICSL - I/C SLUDGE 255.40 T 0.00 255.40 0.00
7 tickets and 7 transactions

MBTI - MBI TIPPER CHARGE 65.00 U 0.00 0.00 0.00
65 tickets and 65 transactions

MS - MSW 2,019.43 T 0.00 2,019.43 0.00
57 tickets and 57 transactions

WES - WESTCHESTER / NY 0.00 2,704.63 0.00
76 tickets and 141 transactions

Report Grand Totals

0.00 35,415.54 0.00

1,426 tickets and 1,682 transactions

End of Report

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Hyland Facility Associates

Origin/Material Report

Origin: All

Transactions from 11/01/2019 through 11/30/2019
Inbound Tickets Only
Third Party and Intercompany Customers
Recycle and Disposal Material
Material Summary

	Bill Units	Cubic Yards	Tons	Est Tons
<hr/>				
ALL - ALLEGANY / NY				
6534 - I/C PLANT TRASH 6534 <i>4 tickets and 4 transactions</i>	8.90 T	0.00	8.90	0.00
6535 - I/C PLANT TRASH 6535 <i>2 tickets and 2 transactions</i>	5.73 T	0.00	5.73	0.00
6645 - MIXED PLANT TRASH 6645 <i>10 tickets and 10 transactions</i>	68.46 T	0.00	68.46	0.00
6646 - MIXED PLANT TRASH 6646 <i>2 tickets and 2 transactions</i>	10.85 T	0.00	10.85	0.00
BAFA - BAGGED FRIABLE ASBESTOS <i>1 ticket and 1 transaction</i>	1.54 T	0.00	1.54	0.00
CD - CONSTRUCTION DEBRIS <i>18 tickets and 18 transactions</i>	40.68 T	0.00	40.68	0.00
ICAW - I/C Allegany Cty Waste <i>3 tickets and 3 transactions</i>	12.56 T	0.00	12.56	0.00
ICCD - I-C CONSTRUCTION DEBRIS <i>6 tickets and 6 transactions</i>	31.74 T	0.00	31.74	0.00

ICDO - I-C DIG OUT SERVICE <i>2 tickets and 2 transactions</i>	2.00 U	0.00	0.00	0.00
ICSD - I/C SAPUTO DAIRY TRASH <i>13 tickets and 13 transactions</i>	69.32 T	0.00	69.32	0.00
MS - MSW <i>105 tickets and 105 transactions</i>	1,045.22 T	0.00	1,045.22	0.00
VWSL - 331 WWTP SLUDGE <i>4 tickets and 4 transactions</i>	56.39 T	0.00	56.39	0.00
ALL - ALLEGANY / NY <i>168 tickets and 170 transactions</i>		0.00	1,351.39	0.00
BRON - BRONX / NY				
CDAD - CONSTRUCTION DEBRIS (BUD ADC) <i>30 tickets and 30 transactions</i>	1,059.05 T	0.00	1,059.05	0.00
MBTI - MBI TIPPER CHARGE <i>21 tickets and 21 transactions</i>	21.00 U	0.00	0.00	0.00
BRON - BRONX / NY <i>30 tickets and 51 transactions</i>		0.00	1,059.05	0.00
CAT - CATTARAUGUS / NY				
4867 - I/C SAWDUST 4867 <i>1 ticket and 1 transaction</i>	4.21 T	0.00	4.21	0.00
6090 - I/C PLANT TRASH 6090 <i>1 ticket and 1 transaction</i>	3.71 T	0.00	3.71	0.00
CD - CONSTRUCTION DEBRIS <i>4 tickets and 4 transactions</i>	13.23 T	0.00	13.23	0.00
ICES - 189 INDUSTRIAL / PLANT TRASH <i>3 tickets and 3 transactions</i>	35.87 T	0.00	35.87	0.00
ICHA - 188 INDUSTRIAL / PLANT TRASH <i>5 tickets and 5 transactions</i>	20.40 T	0.00	20.40	0.00
ICLE - 1548 I/C TOBACCO <i>5 tickets and 5 transactions</i>	16.97 T	0.00	16.97	0.00
ICMS - I-C MSW <i>1 ticket and 1 transaction</i>	1.40 T	0.00	1.40	0.00

ICOS - 582 OLEAN WWTP SLUDGE <i>8 tickets and 8 transactions</i>	114.16 T	0.00	114.16	0.00
ICTR - I/C Mixed Waste TT <i>41 tickets and 41 transactions</i>	1,082.70 T	0.00	1,082.70	0.00
ICWN - 2021 I/C WWTP SLUDGE <i>2 tickets and 2 transactions</i>	35.86 T	0.00	35.86	0.00
MBTP - I/C MBI TIPPER <i>39 tickets and 39 transactions</i>	39.00 U	0.00	0.00	0.00
CAT - CATTARAUGUS / NY <i>71 tickets and 110 transactions</i>		<hr/> 0.00	<hr/> 1,328.51	<hr/> 0.00
CHA - CHAUTAUQUA / (NY)				
ICTR - I/C Mixed Waste TT <i>3 tickets and 3 transactions</i>	31.99 T	0.00	31.99	0.00
MBTP - I/C MBI TIPPER <i>3 tickets and 3 transactions</i>	3.00 U	0.00	0.00	0.00
CHA - CHAUTAUQUA / (NY) <i>3 tickets and 6 transactions</i>		<hr/> 0.00	<hr/> 31.99	<hr/> 0.00
CHE - CHEMUNG / NY				
CHE - CHEMUNG / NY				
ICMS - I-C MSW <i>131 tickets and 131 transactions</i>	4,826.34 T	0.00	4,826.34	0.00
CHE - CHEMUNG / NY <i>131 tickets and 131 transactions</i>		<hr/> 0.00	<hr/> 4,826.34	<hr/> 0.00
CHI - CHITTENDEN / VT				
4155 - NON-HAZ LIQUID 4155 <i>4 tickets and 4 transactions</i>	62.23 T	0.00	62.23	0.00
4217 - NON-HAZ SOLIDS 4217 <i>4 tickets and 4 transactions</i>	10.97 T	0.00	10.97	0.00
CHI - CHITTENDEN / VT <i>8 tickets and 8 transactions</i>		<hr/> 0.00	<hr/> 73.20	<hr/> 0.00

CHNH - CHESHIRE/NH

4286 - I/C NON HAZ LIQUIDS 4286 21.74 T 0.00 21.74 0.00
1 ticket and 1 transaction

CHNH - CHESHIRE/NH

1 ticket and 1 transaction

0.00 21.74 0.00

CO - CORTLAND / NY

6112 - OFF SPEC PROD W/LIQ 6112 22.37 T 0.00 22.37 0.00
2 tickets and 2 transactions

CO - CORTLAND / NY

2 tickets and 2 transactions

0.00 22.37 0.00

HORN - CITY OF HORNELL

MS - MSW 297.26 T 0.00 297.26 0.00
26 tickets and 26 transactions

HORN - CITY OF HORNELL

26 tickets and 26 transactions

0.00 297.26 0.00

K - KINGS / NY**K - KINGS / NY**

CD - CONSTRUCTION DEBRIS 658.93 T 0.00 658.93 0.00
20 tickets and 20 transactions

CDAD - CONSTRUCTION DEBRIS (BUD ADC) 153.30 T 0.00 153.30 0.00
6 tickets and 6 transactions

DO - DIG OUT SERVICE 3.00 U 0.00 0.00 0.00
3 tickets and 3 transactions

MBTI - MBI TIPPER CHARGE 18.00 U 0.00 0.00 0.00
18 tickets and 18 transactions

K - KINGS / NY

26 tickets and 47 transactions

0.00 812.23 0.00

LIV - LIVINGSTON / NY

CD - CONSTRUCTION DEBRIS 4.77 T 0.00 4.77 0.00
1 ticket and 1 transaction

MX - MSW & MIXED TRASH 231.72 T 0.00 231.72 0.00
21 tickets and 21 transactions

LIV - LIVINGSTON / NY

22 tickets and 22 transactions

0.00 236.49 0.00

MCK - MCKEAN / PA

CD - CONSTRUCTION DEBRIS	9.01 T	0.00	9.01	0.00
<i>1 ticket and 1 transaction</i>				

MCK - MCKEAN / PA*1 ticket and 1 transaction*

		0.00	9.01	0.00
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MON - MONROE NY

ICMS - I-C MSW	378.50 T	0.00	378.50	0.00
<i>12 tickets and 12 transactions</i>				

MBTP - I/C MBI TIPPER	3.00 U	0.00	0.00	0.00
<i>3 tickets and 3 transactions</i>				

MON - MONROE NY*12 tickets and 15 transactions*

		0.00	378.50	0.00
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NAS - NASSAU

ICSL - I/C SLUDGE	1,231.14 T	0.00	1,231.14	0.00
<i>34 tickets and 34 transactions</i>				

NAS - NASSAU*34 tickets and 34 transactions*

		0.00	1,231.14	0.00
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O - ORANGE / NY

CDAD - CONSTRUCTION DEBRIS (BUD ADC)	469.43 T	0.00	469.43	0.00
<i>14 tickets and 14 transactions</i>				

DO - DIG OUT SERVICE	1.00 U	0.00	0.00	0.00
<i>1 ticket and 1 transaction</i>				

MBTI - MBI TIPPER CHARGE	13.00 U	0.00	0.00	0.00
<i>13 tickets and 13 transactions</i>				

O - ORANGE / NY*14 tickets and 28 transactions*

		0.00	469.43	0.00
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ONO - ONONDAGA / NY

4427 - NON-HAZ LIQUID 4427	6.21 T	0.00	6.21	0.00
<i>1 ticket and 1 transaction</i>				

4966 - OILY TANK BOTTOMS 4966	62.83 T	0.00	62.83	0.00
<i>5 tickets and 5 transactions</i>				

SL - SLUDGE	209.07 T	0.00	209.07	0.00
<i>6 tickets and 6 transactions</i>				

ONO - ONONDAGA / NY*12 tickets and 12 transactions*

		0.00	278.11	0.00
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POT - POTTER / PA

ICCD - I-C CONSTRUCTION DEBRIS <i>1 ticket and 1 transaction</i>	3.30 T	0.00	3.30	0.00
ICCP - MSW POTTER COUNTY <i>3 tickets and 3 transactions</i>	40.32 T	0.00	40.32	0.00
ICTQ - 1660 IC General Trash <i>1 ticket and 1 transaction</i>	2.50 T	0.00	2.50	0.00
MBTP - I/C MBI TIPPER <i>3 tickets and 3 transactions</i>	3.00 U	0.00	0.00	0.00

POT - POTTER / PA*5 tickets and 8 transactions*

0.00	46.12	0.00
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Q - QUEENS / NY

CD - CONSTRUCTION DEBRIS <i>2 tickets and 2 transactions</i>	73.36 T	0.00	73.36	0.00
MBTI - MBI TIPPER CHARGE <i>2 tickets and 2 transactions</i>	2.00 U	0.00	0.00	0.00

Q - QUEENS / NY*2 tickets and 4 transactions*

0.00	73.36	0.00
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RO - ROCKLAND / NY

DO - DIG OUT SERVICE <i>3 tickets and 3 transactions</i>	3.00 U	0.00	0.00	0.00
MBTI - MBI TIPPER CHARGE <i>22 tickets and 22 transactions</i>	22.00 U	0.00	0.00	0.00
MS - MSW <i>317 tickets and 317 transactions</i>	11,759.35 T	0.00	11,759.35	0.00

RO - ROCKLAND / NY*317 tickets and 342 transactions*

0.00	11,759.35	0.00
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SCH - SCHOHARIE / NY

ICSL - I/C SLUDGE <i>5 tickets and 5 transactions</i>	166.54 T	0.00	166.54	0.00
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SCH - SCHOHARIE / NY*5 tickets and 5 transactions*

0.00	166.54	0.00
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SN - SUFFOLK (NY)

ICSL - I/C SLUDGE <i>91 tickets and 91 transactions</i>	3,221.43 T	0.00	3,221.43	0.00
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SN - SUFFOLK (NY)*91 tickets and 91 transactions*

0.00	3,221.43	0.00
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STE - STEUBEN / NY**STE - STEUBEN / NY****CD - CONSTRUCTION DEBRIS***75 tickets and 75 transactions*

324.23 T	0.00	324.23	0.00
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ICTR - I/C Mixed Waste TT*37 tickets and 37 transactions*

1,339.04 T	0.00	1,339.04	0.00
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MS - MSW*56 tickets and 56 transactions*

463.86 T	0.00	463.86	0.00
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STE - STEUBEN / NY*168 tickets and 168 transactions*

0.00	2,127.13	0.00
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SUL - SULLIVAN / NY**CDAD - CONSTRUCTION DEBRIS (BUD ADC)***2 tickets and 2 transactions*

22.69 T	0.00	22.69	0.00
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DO - DIG OUT SERVICE*1 ticket and 1 transaction*

1.00 U	0.00	0.00	0.00
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HAFE - HANDLING FEE*1 ticket and 1 transaction*

1.00 U	0.00	0.00	0.00
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MBTI - MBI TIPPER CHARGE*2 tickets and 2 transactions*

2.00 U	0.00	0.00	0.00
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SUL - SULLIVAN / NY*2 tickets and 6 transactions*

0.00	22.69	0.00
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TI - TIOGA/NY**1730 - ASR BULKING AGENT 1730S***13 tickets and 13 transactions*

362.48 T	0.00	362.48	0.00
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UPAS - 1730 AUTO SHREDDER*48 tickets and 48 transactions*

1,331.75 T	0.00	1,331.75	0.00
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TI - TIOGA/NY*61 tickets and 61 transactions*

0.00	1,694.23	0.00
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TOM - TOMPKINS / NY**CO - CLEAN OUT SERVICE***3 tickets and 3 transactions*

3.00 U	0.00	0.00	0.00
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ICMS - I-C MSW*10 tickets and 10 transactions*

338.60 T	0.00	338.60	0.00
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TOM - TOMPKINS / NY

MSSL - INDUSTRIAL SOLIDIFICATION 21.10 T 0.00 21.10 0.00
3 tickets and 3 transactions

TOM - TOMPKINS / NY

13 tickets and 16 transactions

0.00 359.70 0.00

ULS - ULSTER NY

CDAD - CONSTRUCTION DEBRIS (BUD ADC) 303.05 T 0.00 303.05 0.00
10 tickets and 10 transactions

DO - DIG OUT SERVICE 1.00 U 0.00 0.00 0.00
1 ticket and 1 transaction

MBTI - MBI TIPPER CHARGE 9.00 U 0.00 0.00 0.00
9 tickets and 9 transactions

ULS - ULSTER NY

10 tickets and 20 transactions

0.00 303.05 0.00

WES - WESTCHESTER / NY

CD - CONSTRUCTION DEBRIS 748.21 T 0.00 748.21 0.00
21 tickets and 21 transactions

ICSL - I/C SLUDGE 359.57 T 0.00 359.57 0.00
10 tickets and 10 transactions

MBTI - MBI TIPPER CHARGE 50.00 U 0.00 0.00 0.00
50 tickets and 50 transactions

MS - MSW 1,061.94 T 0.00 1,061.94 0.00
31 tickets and 31 transactions

WES - WESTCHESTER / NY

62 tickets and 112 transactions

0.00 2,169.72 0.00

Report Grand Totals

0.00 34,370.08 0.00

1,297 tickets and 1,497 transactions

End of Report

RpOrgWs.rpt

Hyland Facility Associates

Origin: All

Origin/Material Report

Transactions from 12/01/2019 through 12/31/2019
Inbound Tickets Only
Third Party and Intercompany Customers
Recycle and Disposal Material
Material Summary

	Bill Units	Cubic Yards	Tons	Est Tons
<hr/>				
ALL - ALLEGANY / NY				
6534 - I/C PLANT TRASH 6534 <i>4 tickets and 4 transactions</i>	8.29 T	0.00	8.29	0.00
6535 - I/C PLANT TRASH 6535 <i>3 tickets and 3 transactions</i>	6.65 T	0.00	6.65	0.00
6645 - MIXED PLANT TRASH 6645 <i>9 tickets and 9 transactions</i>	56.57 T	0.00	56.57	0.00
6646 - MIXED PLANT TRASH 6646 <i>1 ticket and 1 transaction</i>	6.09 T	0.00	6.09	0.00
6864 - METAL GRINDING 6864 <i>1 ticket and 1 transaction</i>	10.66 T	0.00	10.66	0.00
CD - CONSTRUCTION DEBRIS <i>28 tickets and 28 transactions</i>	111.16 T	0.00	111.16	0.00
DO - DIG OUT SERVICE <i>1 ticket and 1 transaction</i>	1.00 U	0.00	0.00	0.00
ICAW - I/C Allegany Cty Waste <i>5 tickets and 5 transactions</i>	21.64 T	0.00	21.64	0.00
ICCD - I-C CONSTRUCTION DEBRIS <i>3 tickets and 3 transactions</i>	11.85 T	0.00	11.85	0.00

ICDO - I-C DIG OUT SERVICE <i>3 tickets and 3 transactions</i>	3.00 U	0.00	0.00	0.00
ICMS - I-C MSW <i>1 ticket and 1 transaction</i>	17.51 T	0.00	17.51	0.00
ICSD - I/C SAPUTO DAIRY TRASH <i>13 tickets and 13 transactions</i>	70.57 T	0.00	70.57	0.00
MS - MSW <i>87 tickets and 87 transactions</i>	820.61 T	0.00	820.61	0.00
MX - MSW & MIXED TRASH <i>2 tickets and 2 transactions</i>	1.09 T	0.00	1.09	0.00
VWSL - 331 WWTP SLUDGE <i>3 tickets and 3 transactions</i>	39.59 T	0.00	39.59	0.00
ALL - ALLEGANY / NY <i>160 tickets and 164 transactions</i>		<hr/> 0.00	<hr/> 1,182.28	<hr/> 0.00
BRON - BRONX / NY				
CDAD - CONSTRUCTION DEBRIS (BUD ADC) <i>28 tickets and 28 transactions</i>	1,010.45 T	0.00	1,010.45	0.00
BRON - BRONX / NY				
MBTI - MBI TIPPER CHARGE <i>22 tickets and 22 transactions</i>	22.00 U	0.00	0.00	0.00
BRON - BRONX / NY <i>28 tickets and 50 transactions</i>		<hr/> 0.00	<hr/> 1,010.45	<hr/> 0.00
BUR - BURLINGTON/NJ				
MSSL - INDUSTRIAL SOLIDIFICATION <i>1 ticket and 1 transaction</i>	19.41 T	0.00	19.41	0.00
BUR - BURLINGTON/NJ <i>1 ticket and 1 transaction</i>		<hr/> 0.00	<hr/> 19.41	<hr/> 0.00
CAT - CATTARAUGUS / NY				
4867 - I/C SAWDUST 4867 <i>1 ticket and 1 transaction</i>	4.09 T	0.00	4.09	0.00
6090 - I/C PLANT TRASH 6090 <i>1 ticket and 1 transaction</i>	3.93 T	0.00	3.93	0.00
CD - CONSTRUCTION DEBRIS <i>2 tickets and 2 transactions</i>	9.80 T	0.00	9.80	0.00

DO - DIG OUT SERVICE <i>1 ticket and 1 transaction</i>	1.00 U	0.00	0.00	0.00
ICBD - I/C BUD ADC <i>1 ticket and 1 transaction</i>	9.26 T	0.00	9.26	0.00
ICCD - I-C CONSTUCTION DEBRIS <i>1 ticket and 1 transaction</i>	4.25 T	0.00	4.25	0.00
ICES - 189 INDUSTRIAL / PLANT TRASH <i>4 tickets and 4 transactions</i>	24.80 T	0.00	24.80	0.00
ICHA - 188 INDUSTRIAL / PLANT TRASH <i>3 tickets and 3 transactions</i>	6.88 T	0.00	6.88	0.00
ICLE - 1548 I/C TOBACCO <i>4 tickets and 4 transactions</i>	10.60 T	0.00	10.60	0.00
ICOS - 582 OLEAN WWTP SLUDGE <i>3 tickets and 3 transactions</i>	45.45 T	0.00	45.45	0.00
ICTR - I/C Mixed Waste TT <i>38 tickets and 38 transactions</i>	903.68 T	0.00	903.68	0.00
CAT - CATTARAUGUS / NY				
ICWN - 2021 I/C WWTP SLUDGE <i>1 ticket and 1 transaction</i>	16.12 T	0.00	16.12	0.00
MBTP - I/C MBI TIPPER <i>37 tickets and 37 transactions</i>	37.00 U	0.00	0.00	0.00
CAT - CATTARAUGUS / NY <i>59 tickets and 97 transactions</i>		0.00	1,038.86	0.00
CHA - CHAUTAUQUA / (NY)				
ICTR - I/C Mixed Waste TT <i>3 tickets and 3 transactions</i>	35.66 T	0.00	35.66	0.00
MBTP - I/C MBI TIPPER <i>3 tickets and 3 transactions</i>	3.00 U	0.00	0.00	0.00
CHA - CHAUTAUQUA / (NY) <i>3 tickets and 6 transactions</i>		0.00	35.66	0.00
CHE - CHEMUNG / NY				
ICMS - I-C MSW <i>124 tickets and 124 transactions</i>	4,534.25 T	0.00	4,534.25	0.00
CHE - CHEMUNG / NY <i>124 tickets and 124 transactions</i>		0.00	4,534.25	0.00

CHI - CHITTENDEN / VT

4155 - NON-HAZ LIQUID 4155	84.78 T	0.00	84.78	0.00
<i>6 tickets and 6 transactions</i>				

4217 - NON-HAZ SOLIDS 4217	22.49 T	0.00	22.49	0.00
<i>6 tickets and 6 transactions</i>				

CHI - CHITTENDEN / VT*12 tickets and 12 transactions*

0.00	107.27	0.00
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CHNH - CHESHIRE/NH

4286 - I/C NON HAZ LIQUIDS 4286	21.41 T	0.00	21.41	0.00
<i>1 ticket and 1 transaction</i>				

CHNH - CHESHIRE/NH*1 ticket and 1 transaction*

0.00	21.41	0.00
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CO - CORTLAND / NY

6112 - OFF SPEC PROD W/LIQ 6112	66.85 T	0.00	66.85	0.00
<i>7 tickets and 7 transactions</i>				

CO - CORTLAND / NY*7 tickets and 7 transactions*

0.00	66.85	0.00
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HORN - CITY OF HORNELL

MS - MSW	331.98 T	0.00	331.98	0.00
<i>28 tickets and 28 transactions</i>				

HORN - CITY OF HORNELL*28 tickets and 28 transactions*

0.00	331.98	0.00
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K - KINGS / NY

CD - CONSTRUCTION DEBRIS	788.02 T	0.00	788.02	0.00
<i>24 tickets and 24 transactions</i>				

DO - DIG OUT SERVICE	2.00 U	0.00	0.00	0.00
<i>2 tickets and 2 transactions</i>				

MBTI - MBI TIPPER CHARGE	21.00 U	0.00	0.00	0.00
<i>21 tickets and 21 transactions</i>				

K - KINGS / NY*24 tickets and 47 transactions*

0.00	788.02	0.00
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LIV - LIVINGSTON / NY

MX - MSW & MIXED TRASH 232.04 T 0.00 232.04 0.00
22 tickets and 22 transactions

LIV - LIVINGSTON / NY

22 tickets and 22 transactions

0.00 232.04 0.00

MON - MONROE NY

ICMS - I-C MSW 24.74 T 0.00 24.74 0.00
1 ticket and 1 transaction

MON - MONROE NY

1 ticket and 1 transaction

0.00 24.74 0.00

NAS - NASSAU

ICSL - I/C SLUDGE 722.74 T 0.00 722.74 0.00
20 tickets and 20 transactions

NAS - NASSAU

20 tickets and 20 transactions

0.00 722.74 0.00

ONO - ONONDAGA / NY

4966 - OILY TANK BOTTOMS 4966 35.49 T 0.00 35.49 0.00
3 tickets and 3 transactions

SL - SLUDGE 104.08 T 0.00 104.08 0.00
3 tickets and 3 transactions

ONO - ONONDAGA / NY

6 tickets and 6 transactions

0.00 139.57 0.00

POT - POTTER / PA

ICCP - MSW POTTER COUNTY 137.16 T 0.00 137.16 0.00
8 tickets and 8 transactions

ICTQ - 1660 IC General Trash 0.72 T 0.00 0.72 0.00
1 ticket and 1 transaction

MBTP - I/C MBI TIPPER 8.00 U 0.00 0.00 0.00
8 tickets and 8 transactions

POT - POTTER / PA

9 tickets and 17 transactions

0.00 137.88 0.00

Q - QUEENS / NY

CD - CONSTRUCTION DEBRIS	103.90 T	0.00	103.90	0.00
<i>3 tickets and 3 transactions</i>				

DO - DIG OUT SERVICE	1.00 U	0.00	0.00	0.00
<i>1 ticket and 1 transaction</i>				

MBTI - MBI TIPPER CHARGE	3.00 U	0.00	0.00	0.00
<i>3 tickets and 3 transactions</i>				

Q - QUEENS / NY		0.00	103.90	0.00
<i>3 tickets and 7 transactions</i>				

RO - ROCKLAND / NY

DO - DIG OUT SERVICE	1.00 U	0.00	0.00	0.00
<i>1 ticket and 1 transaction</i>				

MBTI - MBI TIPPER CHARGE	23.00 U	0.00	0.00	0.00
<i>23 tickets and 23 transactions</i>				

MS - MSW	6,335.21 T	0.00	6,335.21	0.00
<i>170 tickets and 170 transactions</i>				

RO - ROCKLAND / NY		0.00	6,335.21	0.00
<i>170 tickets and 194 transactions</i>				

SC - SCHENECTADY / NY

MSSL - INDUSTRIAL SOLIDIFICATION	17.08 T	0.00	17.08	0.00
<i>2 tickets and 2 transactions</i>				

SC - SCHENECTADY / NY		0.00	17.08	0.00
<i>2 tickets and 2 transactions</i>				

SCH - SCHOHARIE / NY

ICSL - I/C SLUDGE	63.71 T	0.00	63.71	0.00
<i>2 tickets and 2 transactions</i>				

SCH - SCHOHARIE / NY		0.00	63.71	0.00
<i>2 tickets and 2 transactions</i>				

SN - SUFFOLK (NY)

ICSL - I/C SLUDGE	3,929.52 T	0.00	3,929.52	0.00
<i>113 tickets and 113 transactions</i>				

SN - SUFFOLK (NY)		0.00	3,929.52	0.00
<i>113 tickets and 113 transactions</i>				

STE - STEUBEN / NY

CD - CONSTRUCTION DEBRIS	249.23 T	0.00	249.23	0.00
<i>59 tickets and 59 transactions</i>				

STE - STEUBEN / NY

DO - DIG OUT SERVICE	3.00 U	0.00	0.00	0.00
<i>3 tickets and 3 transactions</i>				

ICTR - I/C Mixed Waste TT	1,330.94 T	0.00	1,330.94	0.00
<i>36 tickets and 36 transactions</i>				

MS - MSW	418.88 T	0.00	418.88	0.00
<i>53 tickets and 53 transactions</i>				

STE - STEUBEN / NY		0.00	1,999.05	0.00
<i>148 tickets and 151 transactions</i>				

SUL - SULLIVAN / NY

CD - CONSTRUCTION DEBRIS	6.66 T	0.00	6.66	0.00
<i>1 ticket and 1 transaction</i>				

MBTI - MBI TIPPER CHARGE	1.00 U	0.00	0.00	0.00
<i>1 ticket and 1 transaction</i>				

SUL - SULLIVAN / NY		0.00	6.66	0.00
<i>1 ticket and 2 transactions</i>				

SUS - SUSSEX/ NJ

CDAD - CONSTRUCTION DEBRIS (BUD ADC)	22.10 T	0.00	22.10	0.00
<i>1 ticket and 1 transaction</i>				

SUS - SUSSEX/ NJ		0.00	22.10	0.00
<i>1 ticket and 1 transaction</i>				

TI - TIOGA/NY

1730 - ASR BULKING AGENT 1730S	330.37 T	0.00	330.37	0.00
<i>12 tickets and 12 transactions</i>				

DO - DIG OUT SERVICE	1.00 U	0.00	0.00	0.00
<i>1 ticket and 1 transaction</i>				

IN - INDUSTRIAL	22.92 T	0.00	22.92	0.00
<i>2 tickets and 2 transactions</i>				

UPAS - 1730 AUTO SHREDDER	1,720.29 T	0.00	1,720.29	0.00
<i>59 tickets and 59 transactions</i>				

TI - TIOGA/NY		0.00	2,073.58	0.00
<i>73 tickets and 74 transactions</i>				

TOM - TOMPKINS / NY

MSSL - INDUSTRIAL SOLIDIFICATION 53.28 T 0.00 53.28 0.00
3 tickets and 3 transactions

TOM - TOMPKINS / NY

3 tickets and 3 transactions

0.00 53.28 0.00

ULS - ULSTER NY

CDAD - CONSTRUCTION DEBRIS (BUD ADC) 108.39 T 0.00 108.39 0.00
4 tickets and 4 transactions

MBTI - MBI TIPPER CHARGE 4.00 U 0.00 0.00 0.00
4 tickets and 4 transactions

ULS - ULSTER NY

4 tickets and 8 transactions

0.00 108.39 0.00

WES - WESTCHESTER / NY

CD - CONSTRUCTION DEBRIS 791.51 T 0.00 791.51 0.00
21 tickets and 21 transactions

ICSL - I/C SLUDGE 389.33 T 0.00 389.33 0.00
11 tickets and 11 transactions

MBTI - MBI TIPPER CHARGE 42.00 U 0.00 0.00 0.00
42 tickets and 42 transactions

MS - MSW 912.48 T 0.00 912.48 0.00
26 tickets and 26 transactions

WES - WESTCHESTER / NY

58 tickets and 100 transactions

0.00 2,093.32 0.00

Report Grand Totals

0.00 27,199.21 0.00

1,083 tickets and 1,260 transactions

End of Report

Waste Origin for 2019

Category: All

Category / Origin / Material Report

Transactions from 01/01/2019 through 12/31/2019
 Inbound and Outbound Tickets
 Third Party and Intercompany Customers
 Recycle and Disposal Material
 Material Summary

	Cubic Yards	Tons	Units
ASB - ASBESTOS			
ALB - ALBANY / NY			
BUFA - BULK FRIABLE ASBESTOS <i>3 tickets and 3 transactions</i>	0.00	112.35	0
	<hr/>	<hr/>	<hr/>
ALB - ALBANY / NY <i>3 tickets and 3 transactions</i>	0.00	112.35	0
ALL - ALLEGANY / NY			
BAFA - BAGGED FRIABLE ASBESTOS <i>33 tickets and 33 transactions</i>	0.00	168.53	0
FRAS - FRIABLE ASBESTOS WASTE <i>1 ticket and 1 transaction</i>	0.00	0.43	0
ICBA - I/C BAGGED FRIABLE ASBESTOS <i>8 tickets and 8 transactions</i>	0.00	52.50	0
	<hr/>	<hr/>	<hr/>
ALL - ALLEGANY / NY <i>42 tickets and 42 transactions</i>	0.00	221.46	0
CAT - CATTARAUGUS / NY			
BUFA - BULK FRIABLE ASBESTOS <i>26 tickets and 26 transactions</i>	0.00	243.70	0
ICBA - I/C BAGGED FRIABLE ASBESTOS <i>18 tickets and 18 transactions</i>	0.00	128.01	0

ICFR - I-C FRIABLE ASBESTOS <i>5 tickets and 5 transactions</i>	0.00	50.95	0
CAT - CATTARAUGUS / NY <i>49 tickets and 49 transactions</i>	0.00	422.66	0
CHE - CHEMUNG / NY BUFA - BULK FRIABLE ASBESTOS <i>5 tickets and 5 transactions</i>	0.00	146.87	0
CHE - CHEMUNG / NY <i>5 tickets and 5 transactions</i>	0.00	146.87	0
O - ORANGE / NY BUFA - BULK FRIABLE ASBESTOS <i>116 tickets and 116 transactions</i>	0.00	4,144.40	0
O - ORANGE / NY <i>116 tickets and 116 transactions</i>	0.00	4,144.40	0
OT - OTSEGO / NY BUFA - BULK FRIABLE ASBESTOS <i>6 tickets and 6 transactions</i>	0.00	180.64	0
OT - OTSEGO / NY <i>6 tickets and 6 transactions</i>	0.00	180.64	0
REN - RENSSELAER / NY BAFA - BAGGED FRIABLE ASBESTOS <i>1 ticket and 1 transaction</i>	0.00	1.82	0
ASB - ASBESTOS REN - RENSSELAER / NY <i>1 ticket and 1 transaction</i>	0.00	1.82	0
SC - SCHENECTADY / NY BUFA - BULK FRIABLE ASBESTOS <i>1 ticket and 1 transaction</i>	0.00	22.97	0
SC - SCHENECTADY / NY <i>1 ticket and 1 transaction</i>	0.00	22.97	0
STE - STEUBEN / NY BAFA - BAGGED FRIABLE ASBESTOS <i>12 tickets and 12 transactions</i>	0.00	103.66	0
BUFA - BULK FRIABLE ASBESTOS <i>6 tickets and 6 transactions</i>	0.00	87.03	0

ICBA - I/C BAGGED FRIABLE ASBESTOS <i>2 tickets and 2 transactions</i>	0.00	11.01	0
STE - STEUBEN / NY <i>20 tickets and 20 transactions</i>	0.00	201.70	0
SUL - SULLIVAN / NY BUFA - BULK FRIABLE ASBESTOS <i>81 tickets and 81 transactions</i>	0.00	1,709.56	0
SUL - SULLIVAN / NY <i>81 tickets and 81 transactions</i>	0.00	1,709.56	0
ASB - ASBESTOS <i>324 tickets and 324 transactions</i>	0.00	7,164.43	0
BUD - BUD ADC ALL - ALLEGANY / NY BDCS - BUD CONTAMINATED SOIL <i>55 tickets and 55 transactions</i>	0.00	1,176.09	0
ALL - ALLEGANY / NY <i>55 tickets and 55 transactions</i>	0.00	1,176.09	0
BRON - BRONX / NY CDAD - CONSTRUCTION DEBRIS (BUD ADC) <i>93 tickets and 93 transactions</i>	0.00	3,300.23	0
BRON - BRONX / NY <i>93 tickets and 93 transactions</i>	0.00	3,300.23	0
CAT - CATTARAUGUS / NY ICBD - I/C BUD ADC <i>5 tickets and 5 transactions</i>	0.00	56.23	0
CAT - CATTARAUGUS / NY <i>5 tickets and 5 transactions</i>	0.00	56.23	0
FAI - FAIRFIELD / CT BUD - BUD ADC FAI - FAIRFIELD / CT BCAS - BUD ASR / ADC <i>10 tickets and 10 transactions</i>	0.00	299.89	0
FAI - FAIRFIELD / CT <i>10 tickets and 10 transactions</i>	0.00	299.89	0
K - KINGS / NY CDAD - CONSTRUCTION DEBRIS (BUD ADC) <i>34 tickets and 34 transactions</i>	0.00	844.75	0

K - KINGS / NY*34 tickets and 34 transactions*

0.00 844.75

0**O - ORANGE / NY****CDAD - CONSTRUCTION DEBRIS (BUD ADC)***37 tickets and 37 transactions*

0.00 1,197.59 0

O - ORANGE / NY*37 tickets and 37 transactions*

0.00 1,197.59

0**POT - POTTER / PA****3912 - I/C SANDBLAST GRIT 3912***8 tickets and 8 transactions*

0.00 152.17 0

POT - POTTER / PA*8 tickets and 8 transactions*

0.00 152.17

0**Q - QUEENS / NY****CDAD - CONSTRUCTION DEBRIS (BUD ADC)***222 tickets and 222 transactions*

0.00 8,046.99 0

Q - QUEENS / NY*222 tickets and 222 transactions*

0.00 8,046.99

0**STE - STEUBEN / NY****BDCS - BUD CONTAMINATED SOIL***1 ticket and 1 transaction*

0.00 9.19 0

STE - STEUBEN / NY*1 ticket and 1 transaction*

0.00 9.19

0**SUL - SULLIVAN / NY****CDAD - CONSTRUCTION DEBRIS (BUD ADC)***14 tickets and 14 transactions*

0.00 423.68 0

SUL - SULLIVAN / NY*14 tickets and 14 transactions*

0.00 423.68

0**SUS - SUSSEX/ NJ****CDAD - CONSTRUCTION DEBRIS (BUD ADC)***8 tickets and 8 transactions*

0.00 175.42 0

SUS - SUSSEX/ NJ*8 tickets and 8 transactions*

0.00 175.42

0**TI - TIOGA/NY****BUD - BUD ADC****TI - TIOGA/NY****UPAS - 1730 AUTO SHREDDER***752 tickets and 752 transactions*

0.00 20,949.15 0

TI - TIOGA/NY <i>752 tickets and 752 transactions</i>	0.00	20,949.15	0
ULS - ULSTER NY CDAD - CONSTRUCTION DEBRIS (BUD ADC) <i>43 tickets and 43 transactions</i>	0.00	1,319.81	0
ULS - ULSTER NY <i>43 tickets and 43 transactions</i>	0.00	1,319.81	0
BUD - BUD ADC <i>1,282 tickets and 1,282 transactions</i>	0.00	37,951.19	0
BUDSBA - BUD SOLIDIFICATION BULKING AGENT FAI - FAIRFIELD / CT BDSL - BUD BULKING AGENT <i>18 tickets and 18 transactions</i>	0.00	574.31	0
FAI - FAIRFIELD / CT <i>18 tickets and 18 transactions</i>	0.00	574.31	0
TI - TIOGA/NY 1730 - ASR BULKING AGENT 1730S <i>114 tickets and 114 transactions</i>	0.00	3,159.72	0
TI - TIOGA/NY <i>114 tickets and 114 transactions</i>	0.00	3,159.72	0
BUDSBA - BUD SOLIDIFICATION BULKING AGENT <i>132 tickets and 132 transactions</i>	0.00	3,734.03	0
C&D - CONSTRUCTION DEBRIS ALB - ALBANY / NY CD - CONSTRUCTION DEBRIS <i>6 tickets and 6 transactions</i>	0.00	190.78	0
ALB - ALBANY / NY <i>6 tickets and 6 transactions</i>	0.00	190.78	0
ALL - ALLEGANY / NY ACCD - ALLEGANY CTY C&D <i>25 tickets and 25 transactions</i>	0.00	110.97	0
AS - NON FRIABLE C&D <i>1 ticket and 1 transaction</i>	0.00	3.44	0
CD - CONSTRUCTION DEBRIS <i>470 tickets and 470 transactions</i>	0.00	1,921.14	0
ICAS - I-CNON FRIABLE ASBESTOS WASTE <i>1 ticket and 1 transaction</i>	0.00	2.84	0
C&D - CONSTRUCTION DEBRIS ALL - ALLEGANY / NY			

ICCD - I-C CONSTRUCTION DEBRIS	0.00	585.12	0
<i>158 tickets and 158 transactions</i>			
ALL - ALLEGANY / NY	0.00	2,623.51	0
<i>655 tickets and 655 transactions</i>			
BRON - BRONX / NY			
CD - CONSTRUCTION DEBRIS	0.00	18,194.06	0
<i>508 tickets and 508 transactions</i>			
BRON - BRONX / NY	0.00	18,194.06	0
<i>508 tickets and 508 transactions</i>			
CAT - CATTARAUGUS / NY			
AS - NON FRIABLE C&D	0.00	3.64	0
<i>1 ticket and 1 transaction</i>			
CD - CONSTRUCTION DEBRIS	0.00	532.63	0
<i>101 tickets and 101 transactions</i>			
ICCD - I-C CONSTRUCTION DEBRIS	0.00	18.12	0
<i>6 tickets and 6 transactions</i>			
CAT - CATTARAUGUS / NY	0.00	554.39	0
<i>108 tickets and 108 transactions</i>			
CHE - CHEMUNG / NY			
CD - CONSTRUCTION DEBRIS	0.00	9.81	0
<i>1 ticket and 1 transaction</i>			
CHE - CHEMUNG / NY	0.00	9.81	0
<i>1 ticket and 1 transaction</i>			
ERI - ERIE / NY			
CD - CONSTRUCTION DEBRIS	0.00	34.44	0
<i>3 tickets and 3 transactions</i>			
ERI - ERIE / NY	0.00	34.44	0
<i>3 tickets and 3 transactions</i>			
K - KINGS / NY			
CD - CONSTRUCTION DEBRIS	0.00	10,303.81	0
<i>325 tickets and 325 transactions</i>			
K - KINGS / NY	0.00	10,303.81	0
<i>325 tickets and 325 transactions</i>			
LIV - LIVINGSTON / NY			
CD - CONSTRUCTION DEBRIS	0.00	86.21	0
<i>11 tickets and 11 transactions</i>			
LIV - LIVINGSTON / NY	0.00	86.21	0
<i>11 tickets and 11 transactions</i>			
MCK - MCKEAN / PA			
CD - CONSTRUCTION DEBRIS	0.00	112.25	0

C&D - CONSTRUCTION DEBRIS**MCK - MCKEAN / PA***30 tickets and 30 transactions*

0.00 112.25 0

NEW - NEWARK / NJ**CD - CONSTRUCTION DEBRIS***3 tickets and 3 transactions*

0.00 108.86 0

NEW - NEWARK / NJ*3 tickets and 3 transactions*

0.00 108.86 0

O - ORANGE / NY**CD - CONSTRUCTION DEBRIS***153 tickets and 153 transactions*

0.00 4,993.08 0

O - ORANGE / NY*153 tickets and 153 transactions*

0.00 4,993.08 0

POT - POTTER / PA**ICCD - I-C CONSTRUCTION DEBRIS***1 ticket and 1 transaction*

0.00 3.30 0

POT - POTTER / PA*1 ticket and 1 transaction*

0.00 3.30 0

Q - QUEENS / NY**CD - CONSTRUCTION DEBRIS***93 tickets and 93 transactions*

0.00 3,242.78 0

Q - QUEENS / NY*93 tickets and 93 transactions*

0.00 3,242.78 0

RO - ROCKLAND / NY**CD - CONSTRUCTION DEBRIS***1 ticket and 1 transaction*

0.00 23.00 0

RO - ROCKLAND / NY*1 ticket and 1 transaction*

0.00 23.00 0

STE - STEUBEN / NY**CD - CONSTRUCTION DEBRIS***1,035 tickets and 1,035 transactions*

0.00 3,708.57 0

STE - STEUBEN / NY*1,035 tickets and 1,035 transactions*

0.00 3,708.57 0

SUL - SULLIVAN / NY**CD - CONSTRUCTION DEBRIS***64 tickets and 64 transactions*

0.00 1,811.78 0

SUL - SULLIVAN / NY*64 tickets and 64 transactions*

0.00 1,811.78 0

TIO - TIOGA/ PA

CD - CONSTRUCTION DEBRIS	0.00	22.81	0
<i>2 tickets and 2 transactions</i>			
C&D - CONSTRUCTION DEBRIS			
TIO - TIOGA/ PA	0.00	22.81	0
<i>2 tickets and 2 transactions</i>			
ULS - ULSTER NY			
CD - CONSTRUCTION DEBRIS	0.00	3,245.20	0
<i>101 tickets and 101 transactions</i>			
ULS - ULSTER NY	0.00	3,245.20	0
<i>101 tickets and 101 transactions</i>			
WES - WESTCHESTER / NY			
CD - CONSTRUCTION DEBRIS	0.00	12,954.57	0
<i>356 tickets and 356 transactions</i>			
WES - WESTCHESTER / NY	0.00	12,954.57	0
<i>356 tickets and 356 transactions</i>			
WYO - WYOMING / NY			
CD - CONSTRUCTION DEBRIS	0.00	202.53	0
<i>9 tickets and 9 transactions</i>			
WYO - WYOMING / NY	0.00	202.53	0
<i>9 tickets and 9 transactions</i>			
C&D - CONSTRUCTION DEBRIS	0.00	62,425.74	0
<i>3,465 tickets and 3,465 transactions</i>			
CS - CONTAMINATED SOIL			
ALB - ALBANY / NY			
CS - CONTAMINATED SOIL	0.00	17.63	0
<i>2 tickets and 2 transactions</i>			
ALB - ALBANY / NY	0.00	17.63	0
<i>2 tickets and 2 transactions</i>			
ALL - ALLEGANY / NY			
CS - CONTAMINATED SOIL	0.00	31.16	0
<i>1 ticket and 1 transaction</i>			
ALL - ALLEGANY / NY	0.00	31.16	0
<i>1 ticket and 1 transaction</i>			
CHE - CHEMUNG / NY			
CS - CONTAMINATED SOIL	0.00	3,268.19	0
<i>111 tickets and 111 transactions</i>			
CHE - CHEMUNG / NY	0.00	3,268.19	0
<i>111 tickets and 111 transactions</i>			
ONO - ONONDAGA / NY			
CS - CONTAMINATED SOIL	0.00	16.50	0

1 ticket and 1 transaction

ONO - ONONDAGA / NY

1 ticket and 1 transaction

0.00 16.50 0

CS - CONTAMINATED SOIL

115 tickets and 115 transactions

0.00 3,333.48 0

IND - INDUSTRIAL

ALL - ALLEGANY / NY

6534 - I/C PLANT TRASH 6534

52 tickets and 52 transactions

0.00 119.51 0

6535 - I/C PLANT TRASH 6535

26 tickets and 26 transactions

0.00 78.27 0

6645 - MIXED PLANT TRASH 6645

113 tickets and 113 transactions

0.00 720.63 0

6646 - MIXED PLANT TRASH 6646

9 tickets and 9 transactions

0.00 47.65 0

6687 - I/C FOUNDRY SAND 6687

2 tickets and 2 transactions

0.00 19.08 0

6864 - METAL GRINDING 6864

3 tickets and 3 transactions

0.00 33.41 0

ICSD - I/C SAPUTO DAIRY TRASH

155 tickets and 155 transactions

0.00 783.25 0

ALL - ALLEGANY / NY

360 tickets and 360 transactions

0.00 1,801.80 0

CAT - CATTARAUGUS / NY

4867 - I/C SAWDUST 4867

13 tickets and 13 transactions

0.00 58.51 0

6090 - I/C PLANT TRASH 6090

12 tickets and 12 transactions

0.00 53.31 0

6091 - I/C UNUSED PRODUCT 6091

4 tickets and 4 transactions

0.00 102.30 0

6849 - I/C USED OIL FILTERS 6849

1 ticket and 1 transaction

0.00 1.39 0

ICCS - I-C CONTAMINATED SOIL

2 tickets and 2 transactions

0.00 15.37 0

ICES - 189 INDUSTRIAL / PLANT TRASH

53 tickets and 53 transactions

0.00 518.25 0

ICHA - 188 INDUSTRIAL / PLANT TRASH

49 tickets and 49 transactions

0.00 154.97 0

ICIN - I-C INDUSTRIAL

0.00 132.62 0

25 tickets and 25 transactions

ICLE - 1548 I/C TOBACCO 0.00 180.10 0

46 tickets and 46 transactions

ICLV - I/C INDUSTRIAL WASTE 0.00 2.31 0

1 ticket and 1 transaction

ICPO - 1830 POLYURANTHANE SCRAPS(185) 0.00 17.32 0

6 tickets and 6 transactions

ICTP - 230 Plant Trash/Powder Paint 0.00 8.59 0

1 ticket and 1 transaction

IND - INDUSTRIAL

CAT - CATTARAUGUS / NY 0.00 1,245.04 0

213 tickets and 213 transactions

CHI - CHITTENDEN / VT 0.00 221.91 0

4217 - NON-HAZ SOLIDS 4217

61 tickets and 61 transactions

CHI - CHITTENDEN / VT 0.00 221.91 0

61 tickets and 61 transactions

LIV - LIVINGSTON / NY 0.00 14.98 0

IN - INDUSTRIAL

1 ticket and 1 transaction

LIV - LIVINGSTON / NY 0.00 14.98 0

1 ticket and 1 transaction

MCK - MCKEAN / PA 0.00 1.82 0

ICIN - I-C INDUSTRIAL

4 tickets and 4 transactions

MCK - MCKEAN / PA 0.00 1.82 0

4 tickets and 4 transactions

O - ORANGE / NY 0.00 42.40 0

IN - INDUSTRIAL

2 tickets and 2 transactions

O - ORANGE / NY 0.00 42.40 0

2 tickets and 2 transactions

POT - POTTER / PA 0.00 7.77 0

4376 - I/C PLANT TRASH 4376

1 ticket and 1 transaction

4820 - I/C CHAT PLANT TRASH 4820 0.00 11.69 0

4 tickets and 4 transactions

ICIN - I-C INDUSTRIAL 0.00 52.70 0

3 tickets and 3 transactions

ICTQ - 1660 IC General Trash <i>7 tickets and 7 transactions</i>	0.00	10.48	0
POT - POTTER / PA <i>15 tickets and 15 transactions</i>	0.00	82.64	0
TI - TIOGA/NY IN - INDUSTRIAL <i>2 tickets and 2 transactions</i>	0.00	22.92	0
TI - TIOGA/NY <i>2 tickets and 2 transactions</i>	0.00	22.92	0
IND - INDUSTRIAL <i>658 tickets and 658 transactions</i>	0.00	3,433.51	0
LEACH - LEACHATE LEACH - LEACHATE ALL - ALLEGANY / NY LEACH - LEACHATE <i>1,728 tickets and 1,728 transactions</i>	0.00	0.00	0
ALL - ALLEGANY / NY <i>1,728 tickets and 1,728 transactions</i>	0.00	0.00	0
CAT - CATTARAUGUS / NY LEACH - LEACHATE <i>2 tickets and 2 transactions</i>	0.00	0.00	0
CAT - CATTARAUGUS / NY <i>2 tickets and 2 transactions</i>	0.00	0.00	0
STE - STEUBEN / NY LEACH - LEACHATE <i>2 tickets and 2 transactions</i>	0.00	0.00	0
STE - STEUBEN / NY <i>2 tickets and 2 transactions</i>	0.00	0.00	0
LEACH - LEACHATE <i>1,732 tickets and 1,732 transactions</i>	0.00	0.00	0
MISC - MISC CHARGES ALB - ALBANY / NY MBTI - MBI TIPPER CHARGE <i>1 ticket and 1 transaction</i>	0.00	0.00	1
ALB - ALBANY / NY <i>1 ticket and 1 transaction</i>	0.00	0.00	1
ALL - ALLEGANY / NY CO - CLEAN OUT SERVICE <i>1 ticket and 1 transaction</i>	0.00	0.00	1
DO - DIG OUT SERVICE	0.00	0.00	23

23 tickets and 23 transactions

ICDO - I-C DIG OUT SERVICE 0.00 0.00 13

13 tickets and 13 transactions

ICTI - CAR TIRE REGULAR 0.00 0.00 9

2 tickets and 2 transactions

MBTI - MBI TIPPER CHARGE 0.00 0.00 1

1 ticket and 1 transaction

TI - CAR TIRES - REGULAR 0.00 0.00 3

2 tickets and 2 transactions

ALL - ALLEGANY / NY 0.00 0.00 50

41 tickets and 42 transactions

BRON - BRONX / NY

DO - DIG OUT SERVICE 0.00 0.00 13

13 tickets and 13 transactions

MISC - MISC CHARGES

BRON - BRONX / NY

MBTI - MBI TIPPER CHARGE 0.00 0.00 346

346 tickets and 346 transactions

BRON - BRONX / NY 0.00 0.00 359

351 tickets and 359 transactions

CAT - CATTARAUGUS / NY

DO - DIG OUT SERVICE 0.00 0.00 4

4 tickets and 4 transactions

ICDO - I-C DIG OUT SERVICE 0.00 0.00 9

9 tickets and 9 transactions

MBTP - I/C MBI TIPPER 0.00 0.00 971

971 tickets and 971 transactions

CAT - CATTARAUGUS / NY 0.00 0.00 984

981 tickets and 984 transactions

CHA - CHAUTAUQUA / (NY)

ICDO - I-C DIG OUT SERVICE 0.00 0.00 1

1 ticket and 1 transaction

MBTP - I/C MBI TIPPER 0.00 0.00 26

26 tickets and 26 transactions

CHA - CHAUTAUQUA / (NY) 0.00 0.00 27

26 tickets and 27 transactions

CHE - CHEMUNG / NY

ICDO - I-C DIG OUT SERVICE 0.00 0.00 1

1 ticket and 1 transaction

ICTI - CAR TIRE REGULAR 0.00 0.00 9

3 tickets and 3 transactions

TI - CAR TIRES - REGULAR

0.00 0.00 7

1 ticket and 1 transaction

CHE - CHEMUNG / NY

0.00 0.00 17

5 tickets and 5 transactions

DEL - DELAWARE / NY

CO - CLEAN OUT SERVICE

0.00 0.00 2

2 tickets and 2 transactions

DEL - DELAWARE / NY

0.00 0.00 2

2 tickets and 2 transactions

ERI - ERIE / NY

MBTI - MBI TIPPER CHARGE

0.00 0.00 2

2 tickets and 2 transactions

ERI - ERIE / NY

0.00 0.00 2

2 tickets and 2 transactions

K - KINGS / NY

MISC - MISC CHARGES

K - KINGS / NY

DO - DIG OUT SERVICE

0.00 0.00 16

16 tickets and 16 transactions

MBTI - MBI TIPPER CHARGE

0.00 0.00 218

218 tickets and 218 transactions

K - KINGS / NY

0.00 0.00 234

223 tickets and 234 transactions

MON - MONROE NY

DO - DIG OUT SERVICE

0.00 0.00 4

4 tickets and 4 transactions

ICDO - I-C DIG OUT SERVICE

0.00 0.00 1

1 ticket and 1 transaction

MBTI - MBI TIPPER CHARGE

0.00 0.00 11

11 tickets and 11 transactions

MBTP - I/C MBI TIPPER

0.00 0.00 5

5 tickets and 5 transactions

MON - MONROE NY

0.00 0.00 21

19 tickets and 21 transactions

NAS - NASSAU

DO - DIG OUT SERVICE

0.00 0.00 2

2 tickets and 2 transactions

MBTI - MBI TIPPER CHARGE

0.00 0.00 113

113 tickets and 113 transactions

NAS - NASSAU <i>114 tickets and 115 transactions</i>	0.00	0.00	115
NEW - NEWARK / NJ			
MBTI - MBI TIPPER CHARGE <i>3 tickets and 3 transactions</i>	0.00	0.00	3
NEW - NEWARK / NJ <i>3 tickets and 3 transactions</i>	0.00	0.00	3
O - ORANGE / NY			
DO - DIG OUT SERVICE <i>13 tickets and 13 transactions</i>	0.00	0.00	13
MBTI - MBI TIPPER CHARGE <i>116 tickets and 116 transactions</i>	0.00	0.00	116
O - ORANGE / NY <i>117 tickets and 129 transactions</i>	0.00	0.00	129
POT - POTTER / PA			
MBTP - I/C MBI TIPPER <i>360 tickets and 360 transactions</i>	0.00	0.00	360
POT - POTTER / PA <i>360 tickets and 360 transactions</i>	0.00	0.00	360
MISC - MISC CHARGES			
Q - QUEENS / NY			
DO - DIG OUT SERVICE <i>21 tickets and 21 transactions</i>	0.00	0.00	21
MBTI - MBI TIPPER CHARGE <i>246 tickets and 246 transactions</i>	0.00	0.00	246
Q - QUEENS / NY <i>252 tickets and 267 transactions</i>	0.00	0.00	267
RO - ROCKLAND / NY			
AP - APPLIANCES <i>1 ticket and 1 transaction</i>	0.00	0.00	2
DO - DIG OUT SERVICE <i>42 tickets and 42 transactions</i>	0.00	0.00	42
MBTI - MBI TIPPER CHARGE <i>317 tickets and 317 transactions</i>	0.00	0.00	317
TI - CAR TIRES - REGULAR <i>16 tickets and 16 transactions</i>	0.00	0.00	42
TT - TRAILER TIRE <i>2 tickets and 2 transactions</i>	0.00	0.00	3
RO - ROCKLAND / NY <i>359 tickets and 378 transactions</i>	0.00	0.00	406

ROC - ROCKINGHAM NH

MBTI - MBI TIPPER CHARGE 0.00 0.00 1
1 ticket and 1 transaction

ROC - ROCKINGHAM NH

0.00 0.00 1
1 ticket and 1 transaction

SN - SUFFOLK (NY)

DO - DIG OUT SERVICE 0.00 0.00 5
5 tickets and 5 transactions

ICCO - I/C CLEAN OUT 0.00 0.00 1
1 ticket and 1 transaction

ICDO - I-C DIG OUT SERVICE 0.00 0.00 1
1 ticket and 1 transaction

MBTI - MBI TIPPER CHARGE 0.00 0.00 74
74 tickets and 74 transactions

SN - SUFFOLK (NY)

0.00 0.00 81
76 tickets and 81 transactions

STE - STEUBEN / NY

DO - DIG OUT SERVICE 0.00 0.00 6
6 tickets and 6 transactions

ICDO - I-C DIG OUT SERVICE 0.00 0.00 2
2 tickets and 2 transactions

MBTI - MBI TIPPER CHARGE 0.00 0.00 3
3 tickets and 3 transactions

MISC - MISC CHARGES

STE - STEUBEN / NY

TI - CAR TIRES - REGULAR 0.00 0.00 4
1 ticket and 1 transaction

STE - STEUBEN / NY

0.00 0.00 15
12 tickets and 12 transactions

SUL - SULLIVAN / NY

DO - DIG OUT SERVICE 0.00 0.00 1
1 ticket and 1 transaction

MBTI - MBI TIPPER CHARGE 0.00 0.00 68
68 tickets and 68 transactions

SUL - SULLIVAN / NY

0.00 0.00 69
68 tickets and 69 transactions

TI - TIOGA/NY

DO - DIG OUT SERVICE 0.00 0.00 14
14 tickets and 14 transactions

TI - CAR TIRES - REGULAR <i>1 ticket and 1 transaction</i>	0.00	0.00	15
TI - TIOGA/NY <i>15 tickets and 15 transactions</i>	<hr/> 0.00	<hr/> 0.00	<hr/> 29
TOM - TOMPKINS / NY CO - CLEAN OUT SERVICE <i>6 tickets and 6 transactions</i>	0.00	0.00	6
ICTI - CAR TIRE REGULAR <i>1 ticket and 1 transaction</i>	0.00	0.00	4
TOM - TOMPKINS / NY <i>7 tickets and 7 transactions</i>	<hr/> 0.00	<hr/> 0.00	<hr/> 10
ULS - ULSTER NY DO - DIG OUT SERVICE <i>8 tickets and 8 transactions</i>	0.00	0.00	8
MBTI - MBI TIPPER CHARGE <i>139 tickets and 139 transactions</i>	0.00	0.00	139
ULS - ULSTER NY <i>139 tickets and 147 transactions</i>	<hr/> 0.00	<hr/> 0.00	<hr/> 147
WES - WESTCHESTER / NY CO - CLEAN OUT SERVICE <i>1 ticket and 1 transaction</i>	0.00	0.00	1
DO - DIG OUT SERVICE <i>19 tickets and 19 transactions</i>	0.00	0.00	19
MBTI - MBI TIPPER CHARGE <i>1,430 tickets and 1,430 transactions</i>	0.00	0.00	1,430
TI - CAR TIRES - REGULAR <i>6 tickets and 6 transactions</i>	0.00	0.00	17
MISC - MISC CHARGES WES - WESTCHESTER / NY TT - TRAILER TIRE <i>4 tickets and 4 transactions</i>	0.00	0.00	7
WES - WESTCHESTER / NY <i>1,435 tickets and 1,460 transactions</i>	<hr/> 0.00	<hr/> 0.00	<hr/> 1,474
WYO - WYOMING / NY DO - DIG OUT SERVICE <i>1 ticket and 1 transaction</i>	0.00	0.00	2
WYO - WYOMING / NY <i>1 ticket and 1 transaction</i>	<hr/> 0.00	<hr/> 0.00	<hr/> 2
MISC - MISC CHARGES <i>4,610 tickets and 4,722 transactions</i>	<hr/> 0.00	<hr/> 0.00	<hr/> 4,805

MSW - MUNICIPAL SOLID WASTE

ALL - ALLEGANY / NY

ACMS - ALLEGANY CTY MSW

12 tickets and 12 transactions

0.00 72.83 0

ICAW - I/C Allegany Cty Waste

77 tickets and 77 transactions

0.00 290.98 0

ICMS - I-C MSW

4 tickets and 4 transactions

0.00 72.77 0

MS - MSW

1,340 tickets and 1,340 transactions

0.00 11,990.45 0

ALL - ALLEGANY / NY

1,433 tickets and 1,433 transactions

0.00 12,427.03 0

CAT - CATTARAUGUS / NY

ICMS - I-C MSW

4 tickets and 4 transactions

0.00 46.57 0

MS - MSW

6 tickets and 6 transactions

0.00 13.65 0

CAT - CATTARAUGUS / NY

10 tickets and 10 transactions

0.00 60.22 0

CHE - CHEMUNG / NY

ICMS - I-C MSW

1,524 tickets and 1,524 transactions

0.00 55,022.82 0

CHE - CHEMUNG / NY

1,524 tickets and 1,524 transactions

0.00 55,022.82 0

HORN - CITY OF HORNELL

MS - MSW

326 tickets and 326 transactions

0.00 3,565.07 0

HORN - CITY OF HORNELL

326 tickets and 326 transactions

0.00 3,565.07 0

MSW - MUNICIPAL SOLID WASTE

LIV - LIVINGSTON / NY

MS - MSW

2 tickets and 2 transactions

0.00 9.17 0

LIV - LIVINGSTON / NY

2 tickets and 2 transactions

0.00 9.17 0

MCK - MCKEAN / PA

MS - MSW

2 tickets and 2 transactions

0.00 6.66 0

MCK - MCKEAN / PA

2 tickets and 2 transactions

0.00 6.66 0

MON - MONROE NY**ICMS - I-C MSW***132 tickets and 132 transactions*

0.00 3,889.19 0

MS - MSW*133 tickets and 133 transactions*

0.00 3,874.03 0

MON - MONROE NY*265 tickets and 265 transactions*

0.00 7,763.22

0**NAS - NASSAU****MS - MSW***119 tickets and 119 transactions*

0.00 4,267.21 0

NAS - NASSAU*119 tickets and 119 transactions*

0.00 4,267.21

0**O - ORANGE / NY****MS - MSW***8 tickets and 8 transactions*

0.00 285.95 0

O - ORANGE / NY*8 tickets and 8 transactions*

0.00 285.95

0**POT - POTTER / PA****ICCP - MSW POTTER COUNTY***392 tickets and 392 transactions*

0.00 6,548.50 0

POT - POTTER / PA*392 tickets and 392 transactions*

0.00 6,548.50

0**Q - QUEENS / NY****MS - MSW***4 tickets and 4 transactions*

0.00 147.64 0

Q - QUEENS / NY*4 tickets and 4 transactions*

0.00 147.64

0**RO - ROCKLAND / NY****MS - MSW***3,150 tickets and 3,150 transactions*

0.00 115,126.39 0

RO - ROCKLAND / NY*3,150 tickets and 3,150 transactions*

0.00 115,126.39

0**MSW - MUNICIPAL SOLID WASTE****ROC - ROCKINGHAM NH****MS - MSW***1 ticket and 1 transaction*

0.00 37.28 0

ROC - ROCKINGHAM NH*1 ticket and 1 transaction*

0.00 37.28

0

SN - SUFFOLK (NY)			
MS - MSW	0.00	2,644.58	0
<i>76 tickets and 76 transactions</i>			
SN - SUFFOLK (NY)	<hr/>	<hr/>	<hr/>
<i>76 tickets and 76 transactions</i>	0.00	2,644.58	0
STE - STEUBEN / NY			
ICMS - I-C MSW	0.00	38.49	0
<i>1 ticket and 1 transaction</i>			
MS - MSW	0.00	5,588.85	0
<i>715 tickets and 715 transactions</i>			
STE - STEUBEN / NY	<hr/>	<hr/>	<hr/>
<i>716 tickets and 716 transactions</i>	0.00	5,627.34	0
TI - TIOGA/NY			
MS - MSW	0.00	1,371.71	0
<i>41 tickets and 41 transactions</i>			
TI - TIOGA/NY	<hr/>	<hr/>	<hr/>
<i>41 tickets and 41 transactions</i>	0.00	1,371.71	0
TOM - TOMPKINS / NY			
ICMS - I-C MSW	0.00	2,339.49	0
<i>70 tickets and 70 transactions</i>			
TOM - TOMPKINS / NY	<hr/>	<hr/>	<hr/>
<i>70 tickets and 70 transactions</i>	0.00	2,339.49	0
WES - WESTCHESTER / NY			
MS - MSW	0.00	41,640.17	0
<i>1,157 tickets and 1,157 transactions</i>			
WES - WESTCHESTER / NY	<hr/>	<hr/>	<hr/>
<i>1,157 tickets and 1,157 transactions</i>	0.00	41,640.17	0
MSW - MUNICIPAL SOLID WASTE	<hr/>	<hr/>	<hr/>
<i>9,296 tickets and 9,296 transactions</i>	0.00	258,890.45	0
MX - MIXED C&D AND MSW			
ALL - ALLEGANY / NY			
ICMX - I-C MSW & CD MIXED TRASH	0.00	1.57	0
<i>2 tickets and 2 transactions</i>			
MX - MSW & MIXED TRASH	0.00	26.60	0
<i>33 tickets and 33 transactions</i>			
MX - MIXED C&D AND MSW	<hr/>	<hr/>	<hr/>
ALL - ALLEGANY / NY	0.00	28.17	0
<i>35 tickets and 35 transactions</i>			

CAT - CATTARAUGUS / NY**ICMX - I-C MSW & CD MIXED TRASH***1 ticket and 1 transaction*

0.00 1.21 0

ICTR - I/C Mixed Waste TT*1,081 tickets and 1,081 transactions*

0.00 27,424.25 0

CAT - CATTARAUGUS / NY*1,082 tickets and 1,082 transactions*

0.00 27,425.46

0**CHA - CHAUTAUQUA / (NY)****ICTR - I/C Mixed Waste TT***30 tickets and 30 transactions*

0.00 337.25 0

CHA - CHAUTAUQUA / (NY)*30 tickets and 30 transactions*

0.00 337.25

0**CHE - CHEMUNG / NY****ICTR - I/C Mixed Waste TT***3 tickets and 3 transactions*

0.00 103.10 0

CHE - CHEMUNG / NY*3 tickets and 3 transactions*

0.00 103.10

0**LIV - LIVINGSTON / NY****MX - MSW & MIXED TRASH***249 tickets and 249 transactions*

0.00 2,576.48 0

LIV - LIVINGSTON / NY*249 tickets and 249 transactions*

0.00 2,576.48

0**POT - POTTER / PA****ICMX - I-C MSW & CD MIXED TRASH***1 ticket and 1 transaction*

0.00 2.94 0

POT - POTTER / PA*1 ticket and 1 transaction*

0.00 2.94

0**STE - STEUBEN / NY****ICTR - I/C Mixed Waste TT***486 tickets and 486 transactions*

0.00 17,593.25 0

STE - STEUBEN / NY*486 tickets and 486 transactions*

0.00 17,593.25

0**TOM - TOMPKINS / NY****MX - MSW & MIXED TRASH***1 ticket and 1 transaction*

0.00 36.68 0

TOM - TOMPKINS / NY*1 ticket and 1 transaction*

0.00 36.68

0**MX - MIXED C&D AND MSW***1,887 tickets and 1,887 transactions*

0.00 48,103.33

0

SIM - INDUSTRIAL SOLIDIFICATION**ALL - ALLEGANY / NY****6994 - I/C OFF SPEC FOOD 6994***1 ticket and 1 transaction*

0.00 3.25 0

MSSL - INDUSTRIAL SOLIDIFICATION*3 tickets and 3 transactions*

0.00 23.63 0

ALL - ALLEGANY / NY*4 tickets and 4 transactions*

0.00 26.88

0**BUR - BURLINGTON/NJ****MSSL - INDUSTRIAL SOLIDIFICATION***8 tickets and 8 transactions*

0.00 157.37 0

BUR - BURLINGTON/NJ*8 tickets and 8 transactions*

0.00 157.37

0**CAT - CATTARAUGUS / NY****MSSL - INDUSTRIAL SOLIDIFICATION***1 ticket and 1 transaction*

0.00 12.57 0

CAT - CATTARAUGUS / NY*1 ticket and 1 transaction*

0.00 12.57

0**CHI - CHITTENDEN / VT****4155 - NON-HAZ LIQUID 4155***66 tickets and 66 transactions*

0.00 892.67 0

CHI - CHITTENDEN / VT*66 tickets and 66 transactions*

0.00 892.67

0**CHNH - CHESHIRE/NH****4286 - I/C NON HAZ LIQUIDS 4286***11 tickets and 11 transactions*

0.00 238.70 0

CHNH - CHESHIRE/NH*11 tickets and 11 transactions*

0.00 238.70

0**CO - CORTLAND / NY****6112 - OFF SPEC PROD W/LIQ 6112***9 tickets and 9 transactions*

0.00 89.22 0

CO - CORTLAND / NY*9 tickets and 9 transactions*

0.00 89.22

0**DEL - DELAWARE / NY****MSSL - INDUSTRIAL SOLIDIFICATION***4 tickets and 4 transactions*

0.00 26.67 0

DEL - DELAWARE / NY*4 tickets and 4 transactions*

0.00 26.67

0**GEN - GENESEE / NY**

MSSL - INDUSTRIAL SOLIDIFICATION	0.00	34.94	0
<i>8 tickets and 8 transactions</i>			
GEN - GENESEE / NY	0.00	34.94	0
<i>8 tickets and 8 transactions</i>			
SIM - INDUSTRIAL SOLIDIFICATION			
HAM - HAMPDEN / MASS			
ICSO - I/C SOLIDIFICATION	0.00	6.32	0
<i>1 ticket and 1 transaction</i>			
MSSL - INDUSTRIAL SOLIDIFICATION	0.00	10.23	0
<i>1 ticket and 1 transaction</i>			
HAM - HAMPDEN / MASS	0.00	16.55	0
<i>2 tickets and 2 transactions</i>			
ONO - ONONDAGA / NY			
4427 - NON-HAZ LIQUID 4427	0.00	77.68	0
<i>13 tickets and 13 transactions</i>			
4966 - OILY TANK BOTTOMS 4966	0.00	1,668.49	0
<i>104 tickets and 104 transactions</i>			
MSSL - INDUSTRIAL SOLIDIFICATION	0.00	10.06	0
<i>1 ticket and 1 transaction</i>			
ONO - ONONDAGA / NY	0.00	1,756.23	0
<i>118 tickets and 118 transactions</i>			
SC - SCHENECTADY / NY			
MSSL - INDUSTRIAL SOLIDIFICATION	0.00	17.08	0
<i>2 tickets and 2 transactions</i>			
SC - SCHENECTADY / NY	0.00	17.08	0
<i>2 tickets and 2 transactions</i>			
STE - STEUBEN / NY			
MSSL - INDUSTRIAL SOLIDIFICATION	0.00	38.88	0
<i>5 tickets and 5 transactions</i>			
STE - STEUBEN / NY	0.00	38.88	0
<i>5 tickets and 5 transactions</i>			
TOM - TOMPKINS / NY			
MSSL - INDUSTRIAL SOLIDIFICATION	0.00	112.30	0
<i>10 tickets and 10 transactions</i>			
TOM - TOMPKINS / NY	0.00	112.30	0
<i>10 tickets and 10 transactions</i>			
WAR - WARREN / NY			
MSSL - INDUSTRIAL SOLIDIFICATION	0.00	17.47	0
<i>1 ticket and 1 transaction</i>			

WAR - WARREN / NY <i>1 ticket and 1 transaction</i>	0.00	17.47	0
SIM - INDUSTRIAL SOLIDIFICATION <i>249 tickets and 249 transactions</i>	0.00	3,437.53	0
SS - SEWAGE SLUDGE ALL - ALLEGANY / NY SS - SEWAGE SLUDGE ALL - ALLEGANY / NY			
6493 - WWTP SLUDGE 6493 <i>3 tickets and 3 transactions</i>	0.00	45.17	0
6805 - WWTP SLUDGE 6805 <i>4 tickets and 4 transactions</i>	0.00	69.15	0
ICSL - I/C SLUDGE <i>2 tickets and 2 transactions</i>	0.00	28.75	0
VWSL - 331 WWTP SLUDGE <i>47 tickets and 47 transactions</i>	0.00	650.80	0
ALL - ALLEGANY / NY <i>56 tickets and 56 transactions</i>	0.00	793.87	0
CAT - CATTARAUGUS / NY ICOS - 582 OLEAN WWTP SLUDGE <i>102 tickets and 102 transactions</i>	0.00	1,655.60	0
ICWN - 2021 I/C WWTP SLUDGE <i>7 tickets and 7 transactions</i>	0.00	126.41	0
CAT - CATTARAUGUS / NY <i>109 tickets and 109 transactions</i>	0.00	1,782.01	0
DUT - DUTCHESS / NY ICSL - I/C SLUDGE <i>117 tickets and 117 transactions</i>	0.00	4,061.96	0
DUT - DUTCHESS / NY <i>117 tickets and 117 transactions</i>	0.00	4,061.96	0
GEN - GENESEE / NY ICSL - I/C SLUDGE <i>5 tickets and 5 transactions</i>	0.00	201.61	0
GEN - GENESEE / NY <i>5 tickets and 5 transactions</i>	0.00	201.61	0
NAS - NASSAU ICSL - I/C SLUDGE <i>247 tickets and 247 transactions</i>	0.00	9,390.78	0

NAS - NASSAU <i>247 tickets and 247 transactions</i>	0.00	9,390.78	0
O - ORANGE / NY ICSL - I/C SLUDGE <i>111 tickets and 111 transactions</i>	0.00	3,889.64	0
O - ORANGE / NY <i>111 tickets and 111 transactions</i>	0.00	3,889.64	0
ONO - ONONDAGA / NY SL - SLUDGE <i>28 tickets and 28 transactions</i>	0.00	948.66	0
SS - SEWAGE SLUDGE ONO - ONONDAGA / NY <i>28 tickets and 28 transactions</i>	0.00	948.66	0
Q - QUEENS / NY SL - SLUDGE <i>4 tickets and 4 transactions</i>	0.00	141.10	0
Q - QUEENS / NY <i>4 tickets and 4 transactions</i>	0.00	141.10	0
SCH - SCHOHARIE / NY ICSL - I/C SLUDGE <i>19 tickets and 19 transactions</i>	0.00	648.96	0
SCH - SCHOHARIE / NY <i>19 tickets and 19 transactions</i>	0.00	648.96	0
SN - SUFFOLK (NY) ICSC - 244 SUFFOLK COUNTY SLUDGE <i>124 tickets and 124 transactions</i>	0.00	3,967.18	0
ICSL - I/C SLUDGE <i>1,543 tickets and 1,543 transactions</i>	0.00	47,073.14	0
SN - SUFFOLK (NY) <i>1,667 tickets and 1,667 transactions</i>	0.00	51,040.32	0
SUL - SULLIVAN / NY ICSL - I/C SLUDGE <i>13 tickets and 13 transactions</i>	0.00	511.93	0
SUL - SULLIVAN / NY <i>13 tickets and 13 transactions</i>	0.00	511.93	0

WES - WESTCHESTER / NY			
ICSL - I/C SLUDGE	0.00	4,791.37	0
<i>129 tickets and 129 transactions</i>			
WES - WESTCHESTER / NY	0.00	4,791.37	0
<i>129 tickets and 129 transactions</i>			
SS - SEWAGE SLUDGE	0.00	78,202.21	0
<i>2,505 tickets and 2,505 transactions</i>			
TIRES - MISC CHARGES			
ALL - ALLEGANY / NY			
WT - WEIGHT CHARGE ONLY	0.00	0.00	1
<i>1 ticket and 1 transaction</i>			
HAFE - HANDLING FEE	0.00	0.00	1
<i>1 ticket and 1 transaction</i>			
ALL - ALLEGANY / NY	0.00	0.00	2
<i>2 tickets and 2 transactions</i>			
BRON - BRONX / NY			
TIRES - MISC CHARGES			
BRON - BRONX / NY			
HAFE - HANDLING FEE	0.00	0.00	1
<i>1 ticket and 1 transaction</i>			
BRON - BRONX / NY	0.00	0.00	1
<i>1 ticket and 1 transaction</i>			
Q - QUEENS / NY			
HAFE - HANDLING FEE	0.00	0.00	1
<i>1 ticket and 1 transaction</i>			
Q - QUEENS / NY	0.00	0.00	1
<i>1 ticket and 1 transaction</i>			
SUL - SULLIVAN / NY			
HAFE - HANDLING FEE	0.00	0.00	1
<i>1 ticket and 1 transaction</i>			
SUL - SULLIVAN / NY	0.00	0.00	1
<i>1 ticket and 1 transaction</i>			
TIRES - MISC CHARGES	0.00	0.00	5
<i>5 tickets and 5 transactions</i>			
<u>Report Grand Totals</u>	0.00	506,675.90	4,810
<i>21,646 tickets and 26,372 transactions</i>			

End of Report

ATTACHMENT 4 – WASTE IN PLACE SUMMARY TABLE

Attachment 4 - Waste in Place Summary Table

Year Waste Placed	MSW (tons)⁽¹⁾	Asbestos Waste (tons)	Ash (tons)	C&D Debris (tons)⁽²⁾	Industrial Waste with Drill Cuttings (tons)⁽³⁾	Oil/Gas Drilling Waste (tons)⁽³⁾	Petroleum Contaminated Soil (tons)	Sewage Treatment Plant Sludge (tons)	MSW/C&D Mixed (tons)	Total BUD Materials (tons)⁽⁴⁾	Total Waste in Landfill (tons)	Identify Landfill Section(s) Used
1998	50,403	2,424	655	17,171	9,290	0	372	236	43,076	0	123,627	Cell 1
1999	50,403	2,424	655	17,171	9,290	0	372	236	43,076	0	123,627	Cell 1
2000	50,403	2,424	655	17,171	9,290	0	372	236	43,076	32,046	155,673	Cell 1
2001	18,805	655	0	6,422	1,956	0	242	1,781	199,923	7,478	237,262	Cell 1
2002	18,437	0	0	6,004	7,560	0	89	2,037	190,833	45,908	270,868	Cell 1
2003	4,951	0	0	2,316	26,299	0	0	1,741	197,010	73,191	305,508	Cells 1 and 2
2004	170,313	0	0	17,178	16,402	0	0	21,939	0	21,777	247,609	Cells 1 and 2
2005	201,150	0	0	9,218	13,069	0	0	7,421	0	32,903	263,761	Cells 1 and 2
2006	212,848	0	0	942	4,603	0	0	12,680	0	27,428	258,501	Cells 1 and 2
2007	230,729	0	0	23,240	4,449	0	0	32,216	0	59,881	350,515	Cells 1, 2, and 3
2008	198,674	0	0	43,308	15,276	0	0	23,937	0	42,969	324,164	Cells 1, 2, and 3
2009	145,897	0	297	27,178	7,396	0	0	31,427	0	37,941	250,136	Cells 1, 2, and 3
2010	101,706	0	0	18,536	163,673	0	0	19,239	7,859	70,568	381,581	Cells 1, 2, and 3
2011	124,159	346	0	15,916	105,626	0	0	10,041	1,089	44,463	301,640	Cells 1, 2, and 3
2012	162,847	16,467	0	13,979	13,131	0	0	27,069	908	57,613	292,014	Cells 1, 2, 3, and 4
2013	139,189	15,572	0	11,462	15,258	0	0	24,672	0	44,505	250,658	Cells 1, 2, 3, and 4
2014	182,454	13,445	0	27,794	14,019	469	0	19,470	0	63,069	320,720	Cells 1, 2, 3, and 4
2015	203,332	17,854	0	35,546	6,553	1,355	0	24,634	0	43,954	333,228	Cells 1, 2, 3, and 4
2016 ⁽⁵⁾	203,530	8,782	77	71,505	10,623	14	0	36,379	0	64,721	395,631	Cells 1, 2, 3, and 4
2017	190,030	18,542	0	154,280	12,497	1,463	1,290	55,197	0	63,061	496,360	Cells 1, 2, 3, and 4
2018	201,342	12,312	0	104,245	8,623	0	15,811	71,018	51,290	44,385	509,024	Cells 1, 2, 3, 4, and 5
2019	258,890	7,164	0	62,426	6,871	0	3,333	78,202	48,103	41,685	506,676	Cells 1, 2, 3, 4, and 5
WIP Cumulative Total:⁽⁶⁾	3,120,492	118,411	2,339	703,008	481,754	3,301	21,881	501,808	826,243	919,546	6,698,783	

Notes: 1.) MSW stands for municipal solid waste.

2.) C&D stands for construction and demolition.

3.) Drill cuttings were included in "Industrial Waste" totals through 2013. Starting in 2014, drill cuttings were included under "Oil/Gas Drilling Waste."

4.) BUD stands for beneficial use determination.

5.) The "Total Waste in Landfill" amount in 2016 was previously presented as 401,311 tons in the previous annual reports. However, there was an error in the formula calculating this number, as a result, the correct number is 395,631 tons.

6.) WIP stands for waste in place.

ATTACHMENT 5 – ADDITIONAL PERMIT REPORTING REQUIREMENTS

Additional permit requirements for the 4th Quarter of 2019, as specified in Special Conditions #94 and #95 of the Operation Permit:

Special Condition #94 – Quarterly Report

Condition: Amounts of waste [mixed municipal waste, water and wastewater sludges, nonhazardous industrial waste and sludges, ash(es), construction and demolition debris, asbestos, compost, yard waste and contaminated soil] received from each New York State county on a county by county basis, from the United States on a state by state basis and from outside the country on a nation by nation basis.

Hyland: See Section 6 (Solid Waste Disposed) and Attachments 3 and 9.

Condition: Report on receipt of unauthorized wastes received during the quarter (see Solid Waste Management Permit Condition 42 of this permit).

Hyland: See Section 9 (Unauthorized Solid Waste) and Attachment 6. There was no unauthorized waste received in 2019.

Condition: The amount of leachate collected and hauled off-site on a daily basis and the disposal location. The daily logs of leachate level in the leachate storage tank shall be provided as well.

Hyland: Attachment 7 includes daily leachate levels in each of the surface impoundments. It includes the leachate disposed and leachate generated on a daily basis. In addition, the leachate disposal location and the date of disposal are included for the 4th Quarter of 2019. Disposal locations include Wellsville, Jamestown, Belmont, or Town of Caneadea Wastewater Treatment Plant (WWTP).

Condition: The amounts of liquid collected from the secondary collection system on a daily basis.

Hyland: Attachment 7 includes the amount of leachate collected for each secondary system on a daily basis.

Condition: The monthly Leakage Rate for the secondary collection system of each cell or subcell of the landfill.

Hyland: Attachment 7 includes the monthly leakage rate from each secondary system.

Condition: The date when liquid is detected in any leak detection location, including the amount of liquid removed from each location. This includes all leak detection locations including but not limited to those identified on the most recent approved weekly leachate inspection log.

Hyland: See Attachment 8. There was some accumulated condensate in the manholes, but no leachate was detected during 2019.

Condition: The amount of ADC received during the quarter (on a monthly basis) and the amount of ADC stockpiled on-site at the end of the quarter.

Hyland: Attachment 10 includes the amount of ADC received during the 4th Quarter of 2019. There was no ADC material stockpiled at the end of the 4th Quarter of 2019.

Condition: Results from the monitoring of the gas migration monitoring wells around the perimeter of the landfill.

Hyland: See Attachment 2.

Condition: The analytical results for any condensate samples collected during the quarter being reported.

Hyland: See Attachment 2.

Condition: The amount of condensate collected, the disposal location and the number of gas extraction wells/laterals in operation.

Hyland: Hyland collects condensate in the leachate collection system. In accordance with NYSDEC approved design plans, the condensate is not metered. All condensate is mixed with primary leachate and treated off-site at the Wellsville, Jamestown, Belmont, or Town of Caneadea WWTP. There are currently 53 gas wells and 39 horizontal gas collectors installed/operating.

Condition: The amount of groundwater removed from each groundwater suppression system on a weekly basis. After Cell 5 is constructed, a flow rate shall be determined once per week. Weekly measurements shall occur during the operational life of the landfill and not during post-closure.

Hyland: Weekly flow measurements (Cells 3, 4, and 5) for 2019 are provided in Attachment 19. Hyland is no longer required to pump groundwater from beneath Cells 1 and 2.

Condition: The amount of BUD material (drainage/road) received during the quarter (on a monthly basis) and the amount of BUD material (drainage/road) stockpiled on-site at the end of the quarter.

Hyland: Attachment 11 includes the amount of BUD received during the 4th Quarter of 2019 and Attachment 12 includes the amount of BUD Solidification Bulking Agent received during the 4th Quarter of 2019. There was 150 cubic yards of BUD material stockpiled at the end of the 4th quarter.

Condition: Results from the perched leachate evaluation during every other quarter (see Solid Waste Management Permit Condition 64 of this permit).

Hyland: Per the April 20, 2017 letter from Peter Grasso, NYSDEC granted conditional discontinuance of the Perched Leachate Evaluation required in Permit Condition 64, provided that a report is submitted as an attachment to the Quarterly Report documenting the quantity of leachate pumped from each vertical gas well. During the 4th Quarter of 2019, no leachate was pumped from the vertical gas wells.

Special Condition #95 – Annual Report

Condition: Amounts of waste [mixed municipal waste, water and wastewater sludges, nonhazardous industrial waste and sludges, ash(es), construction and demolition debris, asbestos, compost, yard waste and contaminated soil] received from each New York State county, on a county by county basis from the United States, on a state by state basis and from outside the country, on a nation by nation basis.

Hyland: See Section 6 (Solid Waste Disposed) and Attachments 3 and 9.

Condition: Copies of current and up-to-date contracts with a minimum of two wastewater treatment facilities for the disposal of leachate for the up-coming year. In addition, copies of current and up-to-date contracts with the back-up hauler for the upcoming year shall be provided.

Hyland: See Attachments 13 and 14.

Condition: Any changes to the Fill Progression Plan or modifications to the landfill.

Hyland: No changes.

Condition: An updated cost estimate for closure/post-closure activities to reflect inflation and/or any changes that may impact closure or post-closure.

Hyland: This information was previously submitted to Region 9 of the NYSDEC and no changes are required.

Condition: An updated topographic map (based on Fall conditions) of the site. Included with topographic map shall be a discussion on the amount of waste received, the remaining volume/life of the site and a soil balance for the site. The soil balance shall include: the amount of soil required for cover, closure and other activities; the amount of soil remaining in the permitted borrow area; and the amount of soil that needs to be imported.

Hyland: See Attachment 15.

Condition: Unusual events or accidents at the landfill and responses taken by landfill personnel.

Hyland: No unusual events or accidents occurred at Hyland Landfill during 2019.

Condition: Any changes in water quality which have occurred throughout the report year and a summary of the water quality information.

Hyland: See Attachment 2.

Condition: Any changes from the approved plans, reports and specifications or permit, along with a justification for the change.

Hyland: No changes.

Condition: Summary report for the active landfill gas collection system including the amount of gas burned and condensate collected.

Hyland: See Section 11 (Landfill Gas).

Condition: A detailed plan covering the next three years of operation and construction activities. The plan shall indicate which areas will be constructed, operate and/or closed. A schedule for all activities shall be included.

Hyland: Hyland plans to fill in Cells 1, 2, 3, and 4 (at the top and center of landfill) and waste placement will continue in Cells 5A and 5B. No construction is planned for 2020 and construction of the third phase of Cell 5 (Cell 5C) is scheduled for 2021.

Condition: A summary of the breakout inspections completed throughout the year and the remedial efforts to repair them.

Hyland: Breakout inspections were completed at the beginning of each operating day. Inspection sheets for each breakout were completed and filed in the landfill office. Upon identification of a breakout, an action plan was immediately put into place. Repairs were made to each breakout, which included one or a combination of the following actions; full excavation of the breakout area, adding additional clay, installing drainage pipes, and compacting the intermediate cover soils. See Attachment 16 for a table detailing the breakout inspection information; including, the number and location of breakouts and the action taken to resolve the breakouts.

Condition: Results of the leachate monitoring integrity check.

Hyland: On December 9, 2019, a Pro-Control System Integrity Evaluation was completed of the primary and secondary leachate management systems at Hyland Landfill. The Pro-Control System Integrity Evaluation was completed using forms that were previously submitted to the New York State Department of Environmental Conservation for review in November 2014. The system evaluation consisted of verification that both the visual alarm indicators and the alarm messages were properly functioning. As part of the evaluation, each primary and secondary pump was activated to verify that the pump and corresponding flow meters were functional. In addition, alarm conditions were activated to verify that the alarm lights on the various control panels activated correctly, and that alarm messages were sent to facility personnel. The results of the system evaluation confirmed the integrity of the leachate management systems, successfully demonstrating proper operation of the pumping systems and alarm conditions. See Attachment 17 for the completed evaluation forms.

ATTACHMENT 6 – UNAUTHORIZED WASTE RECEIVED

There was no unauthorized waste received in 2019.

ATTACHMENT 7 – PRIMARY/SECONDARY LEACHATE COLLECTION DATA

Hyland Facility Associates Daily Leachate Tracking January 2019
Bay 1 (North Impoundment)

Date	Reading from Impoundment (ft)	North Bay Leachate Level (gal)	Leachate Capacity to Overflow (gal)	Daily Change in Leachate Volume (gal)
12/31/18	5.8	67,875	483,386	18,128
01/01/19	6.4	92,248	459,013	24,373
01/02/19	6.8	109,908	441,353	17,660
01/03/19	6.3	88,007	463,254	-21,900
01/04/19	5.8	67,875	483,386	-20,132
01/05/19	5.2	46,369	504,892	-21,506
01/06/19	5.7	64,085	487,176	17,715
01/07/19	6.2	83,836	467,425	19,752
01/08/19	5.8	67,875	483,386	-15,961
01/09/19	5.9	71,748	479,513	3,873
01/10/19	5.5	56,751	494,510	-14,997
01/11/19	5.5	56,751	494,510	0
01/12/19	5.4	53,208	498,053	-3,543
01/13/19	5.9	71,748	479,513	18,540
01/14/19	6.3	88,007	463,254	16,259
01/15/19	5.7	64,085	487,176	-23,923
01/16/19	5.6	60,377	490,884	-3,708
01/17/19	5.3	49,747	501,514	-10,629
01/18/19	5.1	43,074	508,187	-6,674
01/19/19	4.8	33,633	517,628	-9,441
01/20/19	5.4	53,208	498,053	19,575
01/21/19	5.9	71,748	479,513	18,540
01/22/19	5.7	64,085	487,176	-7,664
01/23/19	5.5	56,751	494,510	-7,334
01/24/19	5.5	56,751	494,510	0
01/25/19	5.2	46,369	504,892	-10,382
01/26/19	5.0	39,861	511,400	-6,509
01/27/19	5.5	56,751	494,510	16,890
01/28/19	5.9	71,748	479,513	14,997
01/29/19	5.2	46,369	504,892	-25,379
01/30/19	5.1	43,074	508,187	-3,296
01/31/19	5.1	43,074	508,187	0

Bay 2 (South Impoundment)

Date	Reading from Impoundment (ft)	South Bay Leachate Level (gal)	Leachate Capacity to Overflow (gal)	Daily Change in Leachate Volume (gal)
12/31/18	4.9	37,819	519,195	0
01/01/19	4.6	28,203	528,811	-9,616
01/02/19	4.9	37,819	519,195	9,616
01/03/19	4.9	37,819	519,195	0
01/04/19	4.9	37,819	519,195	0
01/05/19	5.0	41,144	515,870	3,325
01/06/19	5.0	41,144	515,870	0
01/07/19	5.0	41,144	515,870	0
01/08/19	5.1	44,533	512,481	3,389
01/09/19	5.2	47,988	509,025	3,456
01/10/19	5.2	47,988	509,025	0
01/11/19	5.3	51,511	505,503	3,523
01/12/19	5.3	51,511	505,503	0
01/13/19	5.3	51,511	505,503	0
01/14/19	5.3	51,511	505,503	0
01/15/19	5.3	51,511	505,503	0
01/16/19	5.3	51,511	505,503	0
01/17/19	5.4	55,101	501,913	3,590
01/18/19	5.4	55,101	501,913	0
01/19/19	5.4	55,101	501,913	0
01/20/19	5.5	58,757	498,257	3,657
01/21/19	5.5	58,757	498,257	0
01/22/19	5.5	58,757	498,257	0
01/23/19	5.5	58,757	498,257	0
01/24/19	5.7	66,271	490,743	7,514
01/25/19	5.8	70,129	486,885	3,857
01/26/19	5.8	70,129	486,885	0
01/27/19	5.8	70,129	486,885	0
01/28/19	5.8	70,129	486,885	0
01/29/19	5.9	74,053	482,961	3,924
01/30/19	5.9	74,053	482,961	0
01/31/19	5.9	74,053	482,961	0

Total Leachate

Total Change in Leachate Volume (gal)	Disposed (gal)	Total Leachate Generation (gal)
18,128	57,859	75,987
14,757	0	14,757
27,276	66,075	93,351
-21,900	73,265	51,365
-20,132	65,842	45,710
-18,181	15,037	-3,144
17,715	0	17,715
19,752	51,240	70,992
-12,573	58,531	45,958
7,329	72,748	80,077
-14,997	36,438	21,441
3,523	36,559	40,082
-3,543	0	-3,543
18,540	0	18,540
16,259	65,656	81,915
-23,923	44,024	20,101
-3,708	50,780	47,072
-7,040	51,363	44,323
-6,674	43,721	37,047
-9,441	0	-9,441
23,232	0	23,232
18,540	36,257	54,797
-7,664	29,044	21,380
-7,334	58,439	51,105
7,514	65,729	73,243
-6,524	51,663	45,139
-6,509	0	-6,509
16,890	0	16,890
14,997	80,313	95,310
-21,454	37,251	15,797
-3,296	28,372	25,076
0	21,446	21,446

Total Leachate Collected **1,151,226**
 Secondary Leachate Collected 4,992
 Total Primary Collected 1,146,234
 Total Gallons Hauled 1,139,793

Date	Secondary Liquid Cell 1 A/B Meter Reading	Secondary Liquid Cell 1 A/B Daily Flow	Secondary Liquid Cell 1 C/D Meter Reading	Secondary Liquid Cell 1 C/D Daily Flow	Secondary Liquid Cell 2 E/F Meter Reading	Secondary Liquid Cell 2 E/F Daily Flow	Secondary Liquid Cell 2 G/H Meter Reading	Secondary Liquid Cell 2 G/H Daily Flow	Secondary Liquid Cell 3 Totalize Reading gals	Secondary Liquid Cell 3 Daily Flow gals	Secondary Liquid Cell 4 Totalizer Reading gals	Secondary Liquid Cell 4 Daily Flow gals	Secondary Liquid Cell 5A Totalizer Reading gals	Secondary Liquid Cell 5A Daily Flow gals	North Impoundment Bay Totalizer Reading gals	North Impoundment Bay Daily Flow gals	South Impoundment Bay Totalizer Reading gals	South Impoundment Bay Daily Flow gals
12/31/18	629361	0	90996	0	323018	0	195677	0	8032198	0	353334	0	17333	0	8571843	0	4232611	0
01/01/19	629361	0	90996	0	323018	0	195677	0	8032198	0	353334	0	18046	713	8571843	0	4232611	0
01/02/19	629361	0	91064	68	323018	0	195677	0	8032198	0	353656	322	18046	0	8571843	0	4232611	0
01/03/19	629421	60	91064	0	323018	0	195677	0	8032486	288	353656	0	18046	0	8571843	0	4232611	0
01/04/19	629421	0	91064	0	323018	0	195708	31	8032501	15	353656	0	18046	0	8571843	0	4232611	0
01/05/19	629422	1	91066	2	323027	9	195709	1	8032502	1	353663	7	18874	828	8571843	0	4232611	0
01/06/19	629422	0	91066	0	323027	0	195709	0	8032502	0	353663	0	18874	0	8571843	0	4232611	0
01/07/19	629422	0	91066	0	323027	0	195738	29	8032502	0	353663	0	18874	0	8571843	0	4232611	0
01/08/19	629422	0	91066	0	323027	0	195738	0	8032502	0	353663	0	18874	0	8571843	0	4232611	0
01/09/19	629422	0	91066	0	323027	0	195738	0	8032502	0	353663	0	18874	0	8571843	0	4232611	0
01/10/19	629422	0	91066	0	323027	0	195738	0	8032502	0	353663	0	18874	0	8571843	0	4232611	0
01/11/19	629422	0	91066	0	323027	0	195766	28	8032502	0	353663	0	18874	0	8571843	0	4232611	0
01/12/19	629423	1	91067	1	323035	8	195767	1	8032504	2	353675	12	18874	0	8571843	0	4232611	0
01/13/19	629423	0	91067	0	323035	0	195767	0	8032819	315	353675	0	18874	0	8571843	0	4232611	0
01/14/19	629423	0	91067	0	323035	0	195767	0	8032819	0	353675	0	18874	0	8571843	0	4232611	0
01/15/19	629423	0	91067	0	323225	190	195767	0	8032819	0	353675	0	18874	0	8571843	0	4232611	0
01/16/19	629482	59	91135	68	323225	0	195767	0	8032819	0	353675	0	18874	0	8571843	0	4232611	0
01/17/19	629482	0	91135	0	323225	0	195797	30	8032819	0	353675	0	19702	828	8571843	0	4232611	0
01/18/19	629482	0	91135	0	323225	0	195797	0	8032819	0	353675	0	19965	263	8571843	0	4232611	0
01/19/19	629483	1	91135	0	323233	8	195797	0	8032819	0	353675	0	19965	0	8571843	0	4232611	0
01/20/19	629483	0	91135	0	323233	0	195797	0	8032819	0	353675	0	19965	0	8571843	0	4232611	0
01/21/19	629483	0	91135	0	323233	0	195826	29	8032819	0	353675	0	19965	0	8571843	0	4232611	0
01/22/19	629483	0	91135	0	323233	0	195826	0	8032819	0	353675	0	19965	0	8571843	0	4232611	0
01/23/19	629483	0	91135	0	323233	0	195826	0	8032819	0	353675	0	19965	0	8571843	0	4232611	0
01/24/19	629483	0	91135	0	323233	0	195826	0	8032819	0	353675	0	19965	0	8571843	0	4232611	0
01/25/19	629483	0	91135	0	323233	0	195826	0	8032819	0	354004	329	19966	1	8571843	0	4232611	0
01/26/19	629484	1	91136	1	323241	8	195855	29	8032821	2	354010	6	19966	0	8571843	0	4232611	0
01/27/19	629484	0	91136	0	323241	0	195855	0	8032821	0	354010	0	19966	0	8571843	0	4232611	0
01/28/19	629484	0	91136	0	323241	0	195855	0	8033122	301	354010	0	19966	0	8571843	0	4232611	0
01/29/19	629484	0	91136	0	323241	0	195855	0	8033122	0	354010	0	19966	0	8571843	0	4232611	0
01/30/19	629484	0	91136	0	323241	0	195855	0	8033122	0	354010	0	19966	0	8571843	0	4232611	0
01/31/19	629484	0	91205	69	323241	0	195881	26	8033122	0	354010	0	19966	0	8571843	0	4232611	0

A/B ALR: 0.4 C/D ALR: 0.8 E/F ALR: 1.0 G/H ALR: 1.5 Cell 3 ALR: 3.1 Cell 4 ALR: 2.3 Cell 5A ALR: 10.0 N IMP Sec: 0.00 S IMP Sec: 0.00
Total A/B: 123.0 *Total C/D:* 209.0 *Total E/F:* 223.0 *Total G/H:* 204.0 *Total Cell 3:* 924.0 *Total Cell 4:* 676.0 *Total Cell 5A:* 2633 *Total North:* 0 *Total South:* 0

Secondary Total: 4992

Bay 1 (North Impoundment)

Date	Reading from Impoundment (ft)	North Bay Leachate Level (gal)	Leachate Capacity to Overflow (gal)	Daily Change in Leachate Volume (gal)
01/31/19	5.1	43,074	508,187	0
02/01/19	5.2	46,369	504,892	3,296
02/02/19	4.7	30,606	520,655	-15,763
02/03/19	5.2	46,369	504,892	15,763
02/04/19	5.7	64,085	487,176	17,715
02/05/19	5.4	53,208	498,053	-10,877
02/06/19	4.7	30,606	520,655	-22,602
02/07/19	4.6	27,637	523,624	-2,969
02/08/19	4.3	19,079	532,182	-8,558
02/09/19	3.8	11,912	539,349	-7,167
02/10/19	4.3	19,079	532,182	7,167
02/11/19	4.8	33,633	517,628	14,554
02/12/19	3.9	13,294	537,967	-20,339
02/13/19	3.9	13,294	537,967	0
02/14/19	3.6	9,223	542,038	-4,071
02/15/19	3.1	3,564	547,697	-5,659
02/16/19	2.7	2,507	548,754	-1,057
02/17/19	2.9	2,934	548,327	427
02/18/19	2.9	2,934	548,327	0
02/19/19	2.9	2,934	548,327	0
02/20/19	2.9	2,934	548,327	0
02/21/19	3.0	3,162	548,099	228
02/22/19	3.0	3,162	548,099	0
02/23/19	3.0	3,162	548,099	0
02/24/19	3.0	3,162	548,099	0
02/25/19	3.1	3,564	547,697	402
02/26/19	3.1	3,564	547,697	0
02/27/19	3.1	3,564	547,697	0
02/28/19	3.2	4,303	546,958	739

Bay 2 (South Impoundment)

Date	Reading from Impoundment (ft)	South Bay Leachate Level (gal)	Leachate Capacity to Overflow (gal)	Daily Change in Leachate Volume (gal)
01/31/19	5.9	74,053	482,961	0
02/01/19	5.9	74,053	482,961	0
02/02/19	5.9	74,053	482,961	0
02/03/19	5.9	74,053	482,961	0
02/04/19	5.9	74,053	482,961	0
02/05/19	6.0	78,045	478,969	3,991
02/06/19	6.1	82,105	474,909	4,061
02/07/19	6.2	86,237	470,777	4,132
02/08/19	6.3	90,440	466,574	4,203
02/09/19	6.3	90,440	466,574	0
02/10/19	6.3	90,440	466,574	0
02/11/19	6.3	90,440	466,574	0
02/12/19	6.3	90,440	466,574	0
02/13/19	6.4	94,714	462,300	4,274
02/14/19	6.4	94,714	462,300	0
02/15/19	6.4	94,714	462,300	0
02/16/19	6.3	90,440	466,574	-4,274
02/17/19	6.7	107,963	449,051	17,523
02/18/19	7.0	121,852	435,162	13,890
02/19/19	6.9	117,151	439,863	-4,701
02/20/19	6.4	94,714	462,300	-22,438
02/21/19	6.1	82,105	474,909	-12,609
02/22/19	5.6	62,481	494,533	-19,624
02/23/19	5.3	51,511	505,503	-10,970
02/24/19	5.8	70,129	486,885	18,618
02/25/19	6.4	94,714	462,300	24,585
02/26/19	6.8	112,521	444,492	17,808
02/27/19	6.2	86,237	470,777	-26,285
02/28/19	6.4	94,714	462,300	8,477

Total Leachate

Total Change in Leachate Volume (gal)	Disposed (gal)	Total Leachate Generation (gal)
0	21,446	21,446
3,296	58,649	61,945
-15,763	0	-15,763
15,763	0	15,763
17,715	59,243	76,958
-6,885	66,095	59,210
-18,541	43,751	25,210
1,163	59,155	60,318
-4,356	58,465	54,109
-7,167	0	-7,167
7,167	0	7,167
14,554	80,159	94,713
-20,339	29,528	9,189
4,274	50,513	54,787
-4,071	50,771	46,700
-5,659	57,775	52,116
-5,331	0	-5,331
17,950	0	17,950
13,890	51,684	65,574
-4,701	43,990	39,289
-22,438	49,826	27,388
-12,380	58,648	46,268
-19,624	43,519	23,895
-10,970	0	-10,970
18,618	0	18,618
24,987	0	24,987
17,808	58,233	76,041
-26,285	21,513	-4,772
9,216	51,418	60,634

Total Leachate Collected **974,824**
 Secondary Leachate Collected 2,377
 Total Primary Collected 972,447
 Total Gallons Hauled 992,935

Hyland Facility Associates
Angelica, NY

Daily Leachate Tracking February 2019

Daily Leachate Tracking February 2019

Date	Secondary Liquid Cell 1 A/B Meter Reading	Secondary Liquid Cell 1 A/B Daily Flow	Secondary Liquid Cell 1 C/D Meter Reading	Secondary Liquid Cell 1 C/D Daily Flow	Secondary Liquid Cell 2 E/F Meter Reading	Secondary Liquid Cell 2 E/F Daily Flow	Secondary Liquid Cell 2 G/H Meter Reading	Secondary Liquid Cell 2 G/H Daily Flow	Secondary Liquid Cell 3 Totalize Reading gals	Secondary Liquid Cell 3 Daily Flow gals	Secondary Liquid Cell 4 Totalizer Reading gals	Secondary Liquid Cell 4 Daily Flow gals	Secondary Liquid Cell 5A Totalizer Reading gals	Secondary Liquid Cell 5A Daily Flow gals	North Impoundment Bay Totalizer Reading gals	North Impoundment Bay Daily Flow gals	South Impoundment Bay Totalizer Reading gals	South Impoundment Bay Daily Flow gals
01/31/19	629484	0	91205	69	323241	0	195881	26	8033122	0	354010	0	19966	0	8571843	0	4232611	0
02/01/19	629543	59	91205	0	323241	0	195881	0	8033122	0	354010	0	19966	0	8571843	0	4232611	0
02/02/19	629544	1	91206	1	323250	9	195881	0	8033123	1	354015	5	19966	0	8571843	0	4232611	0
02/03/19	629544	0	91206	0	323250	0	195881	0	8033123	0	354015	0	19966	0	8571843	0	4232611	0
02/04/19	629544	0	91206	0	323250	0	195881	0	8033123	0	354015	0	19966	0	8571843	0	4232611	0
02/05/19	629544	0	91206	0	323250	0	195890	9	8033123	0	354038	23	19980	14	8571843	0	4232611	0
02/06/19	629557	13	91214	8	323260	10	195890	0	8033123	0	354038	0	19980	0	8571843	0	4232611	0
02/07/19	629557	0	91214	0	323260	0	195890	0	8033212	89	354038	0	19980	0	8571843	0	4232611	0
02/08/19	629557	0	91214	0	323368	108	195890	0	8033212	0	354038	0	19980	0	8571843	0	4232611	0
02/09/19	629559	2	91216	2	323376	8	195922	32	8033214	2	354044	6	19980	0	8571843	0	4232611	0
02/10/19	629559	0	91216	0	323376	0	195945	23	8033214	0	354044	0	19980	0	8571843	0	4232611	0
02/11/19	629559	0	91216	0	323376	0	195945	0	8033214	0	354044	0	19980	0	8571843	0	4232611	0
02/12/19	629559	0	91216	0	323376	0	195945	0	8033214	0	354044	0	20694	714	8571843	0	4232611	0
02/13/19	629559	0	91216	0	323376	0	195945	0	8033516	302	354044	0	20694	0	8571843	0	4232611	0
02/14/19	629559	0	91216	0	323376	0	195945	0	8033516	0	354044	0	20694	0	8571843	0	4232611	0
02/15/19	629559	0	91216	0	323376	0	195945	0	8033516	0	354044	0	20694	0	8571843	0	4232611	0
02/16/19	629559	0	91218	2	323384	8	195947	2	8033518	2	354049	5	20694	0	8571843	0	4232611	0
02/17/19	629559	0	91218	0	323384	0	195947	0	8033518	0	354049	0	20694	0	8571843	0	4232611	0
02/18/19	629559	0	91218	0	323384	0	195947	0	8033518	0	354049	0	20694	0	8571843	0	4232611	0
02/19/19	629559	0	91287	69	323384	0	196002	55	8033518	0	354049	0	20694	0	8571843	0	4232611	0
02/20/19	629559	0	91287	0	323384	0	196002	0	8033518	0	354049	0	20694	0	8571843	0	4232611	0
02/21/19	629559	0	91287	0	323384	0	196002	0	8033518	0	354049	0	20694	0	8571843	0	4232611	0
02/22/19	629559	0	91287	0	323384	0	196002	0	8033518	0	354049	0	20694	0	8571843	0	4232611	0
02/23/19	629559	0	91287	0	323384	0	196002	0	8033518	0	354049	0	20694	0	8571843	0	4232611	0
02/24/19	629620	61	91288	1	323393	9	196003	1	8033519	1	354056	7	20694	0	8571843	0	4232611	0
02/25/19	629620	0	91288	0	323511	118	196003	0	8033779	260	354360	304	20694	0	8571843	0	4232611	0
02/26/19	629620	0	91288	0	323511	0	196032	29	8033779	0	354360	0	20696	2	8571843	0	4232611	0
02/27/19	629620	0	91288	0	323511	0	196032	0	8033779	0	354360	0	20696	0	8571843	0	4232611	0
02/28/19	629620	0	91288	0	323511	0	196032	0	8033779	0	354360	0	20696	0	8571843	0	4232611	0

A/B ALR:	0.5	C/D ALR:	0.3	E/F ALR:	1.4	G/H ALR:	1.3	Cell 3 ALR	2.4	Cell 4 ALR	1.3	Cell 5A ALR	3.1	N IMP Sec	0.00	S IMP Sec	0.00
Total A/B:	136.0	Total C/D:	83	Total E/F:	270	Total G/H:	151	Total Cell 3:	657	Total Cell 4:	350	Total Cell 5A:	730	Total North:	0	Total South:	0

Secondary Total: 2377

Hyland Facility Associates

Daily Leachate Tracking March 2019

Bay 1 (North Impoundment)

Date	Reading from Impoundment (ft)	North Bay Leachate Level (gal)	Leachate Capacity to Overflow (gal)	Daily Change in Leachate Volume (gal)
02/28/19	3.2	4,303	546,958	739
03/01/19	3.2	4,303	546,958	0
03/02/19	3.2	4,303	546,958	0
03/03/19	3.2	4,303	546,958	0
03/04/19	3.2	4,303	546,958	0
03/05/19	3.2	4,303	546,958	0
03/06/19	3.2	4,303	546,958	0
03/07/19	3.2	4,303	546,958	0
03/08/19	3.2	4,303	546,958	0
03/09/19	3.2	4,303	546,958	0
03/10/19	3.3	5,378	545,883	1,076
03/11/19	3.4	6,635	544,626	1,257
03/12/19	3.4	6,635	544,626	0
03/13/19	3.4	6,635	544,626	0
03/14/19	3.5	7,917	543,344	1,282
03/15/19	3.5	7,917	543,344	0
03/16/19	3.5	7,917	543,344	0
03/17/19	3.5	7,917	543,344	0
03/18/19	3.5	7,917	543,344	0
03/19/19	3.5	7,917	543,344	0
03/20/19	3.5	7,917	543,344	0
03/21/19	3.5	7,917	543,344	0
03/22/19	3.5	7,917	543,344	0
03/23/19	3.5	7,917	543,344	0
03/24/19	3.5	7,917	543,344	0
03/25/19	3.5	7,917	543,344	0
03/26/19	3.5	7,917	543,344	0
03/27/19	3.5	7,917	543,344	0
03/28/19	3.5	7,917	543,344	0
03/29/19	3.5	7,917	543,344	0
03/30/19	3.5	7,917	543,344	0
03/31/19	3.6	9,223	542,038	1,307

Bay 2 (South Impoundment)

Date	Reading from Impoundment (ft)	South Bay Leachate Level (gal)	Leachate Capacity to Overflow (gal)	Daily Change in Leachate Volume (gal)
02/28/19	6.4	94,714	462,300	8,477
03/01/19	6.0	78,045	478,969	-16,669
03/02/19	5.6	62,481	494,533	-15,564
03/03/19	6.0	78,045	478,969	15,564
03/04/19	6.4	94,714	462,300	16,669
03/05/19	6.0	78,045	478,969	-16,669
03/06/19	5.7	66,271	490,743	-11,773
03/07/19	5.4	55,101	501,913	-11,171
03/08/19	5.3	51,511	505,503	-3,590
03/09/19	4.9	37,819	519,195	-13,692
03/10/19	5.4	55,101	501,913	17,282
03/11/19	5.9	74,053	482,961	18,953
03/12/19	5.7	66,271	490,743	-7,782
03/13/19	5.4	55,101	501,913	-11,171
03/14/19	6.6	103,475	453,539	48,375
03/15/19	5.0	41,144	515,870	-62,331
03/16/19	4.8	34,554	522,460	-6,591
03/17/19	5.3	51,511	505,503	16,957
03/18/19	5.8	70,129	486,885	18,618
03/19/19	5.4	55,101	501,913	-15,028
03/20/19	5.0	41,144	515,870	-13,956
03/21/19	4.8	34,554	522,460	-6,591
03/22/19	4.4	22,091	534,923	-12,463
03/23/19	4.1	16,171	540,843	-5,920
03/24/19	4.6	28,203	528,811	12,032
03/25/19	5.1	44,533	512,481	16,330
03/26/19	4.6	28,203	528,811	-16,330
03/27/19	4.1	16,171	540,843	-12,032
03/28/19	3.8	11,936	545,078	-4,235
03/29/19	3.5	7,926	549,088	-4,010
03/30/19	4.1	16,171	540,843	8,245
03/31/19	4.6	28,203	528,811	12,032

Total Change in Leachate Volume (gal)	Disposed (gal)	Total Leachate Generation (gal)
9,216	51,418	60,634
-16,669	58,482	41,813
-15,564	0	-15,564
15,564	0	15,564
16,669	51,059	67,728
-16,669	43,734	27,065
-11,773	49,820	38,047
-11,171	28,908	17,737
-3,590	51,042	47,452
-13,692	0	-13,692
18,357	0	18,357
20,209	51,018	71,227
-7,782	51,221	43,439
-11,171	42,088	30,917
49,656	51,428	101,084
-62,331	43,955	-18,376
-6,591	0	-6,591
16,957	0	16,957
18,618	51,295	69,913
-15,028	51,278	36,250
-13,956	42,857	28,901
-6,591	51,159	44,568
-12,463	44,060	31,597
-5,920	0	-5,920
12,032	0	12,032
16,330	51,126	67,456
-16,330	51,023	34,693
-12,032	42,290	30,258
-4,235	43,655	39,420
-4,010	0	-4,010
8,245	0	8,245
13,338	0	13,338

Total Leachate Collected **889,908**
 Secondary Leachate Collected 3,044
 Total Primary Collected 886,864
 Total Gallons Hauled 951,498

Date	Secondary Liquid Cell 1 A/B Meter Reading	Secondary Liquid Cell 1 A/B Daily Flow	Secondary Liquid Cell 1 C/D Meter Reading	Secondary Liquid Cell 1 C/D Daily Flow	Secondary Liquid Cell 2 E/F Meter Reading	Secondary Liquid Cell 2 E/F Daily Flow	Secondary Liquid Cell 2 G/H Meter Reading	Secondary Liquid Cell 2 G/H Daily Flow	Secondary Liquid Cell 3 Totalize Reading gals	Secondary Liquid Cell 3 Daily Flow gals	Secondary Liquid Cell 4 Totalizer Reading gals	Secondary Liquid Cell 4 Daily Flow gals	Secondary Liquid Cell 5A Totalizer Reading gals	Secondary Liquid Cell 5A Daily Flow gals	North Impound-ment Bay Totalizer Reading gals	North Impound-ment Bay Daily Flow gals	South Impound-ment Bay Totalizer Reading gals	South Impound-ment Bay Daily Flow gals
02/28/19	629620	0	91288	0	323511	0	196032	0	8033779	0	354360	0	20696	0	8571843	0	4232611	0
03/01/19	629620	0	91289	1	323520	9	196033	1	8033781	2	354365	5	20696	0	8571843	0	4232611	0
03/02/19	629620	0	91289	0	323520	0	196033	0	8033781	0	354365	0	20696	0	8571843	0	4232611	0
03/03/19	629620	0	91289	0	323520	0	196064	31	8033781	0	354365	0	20696	0	8571843	0	4232611	0
03/04/19	629620	0	91289	0	323520	0	196064	0	8033781	0	354365	0	20696	0	8571843	0	4232611	0
03/05/19	629620	0	91289	0	323520	0	196064	0	8033781	0	354365	0	20696	0	8571843	0	4232611	0
03/06/19	629620	0	91289	0	323520	0	196094	30	8033781	0	354365	0	21539	843	8571843	0	4232611	0
03/07/19	629620	0	91289	0	323520	0	196094	0	8034094	313	354365	0	21539	0	8571843	0	4232611	0
03/08/19	629622	2	91290	1	323529	9	196120	26	8034095	1	354372	7	21539	0	8571843	0	4232611	0
03/09/19	629622	0	91290	0	323529	0	196120	0	8034095	0	354372	0	21539	0	8571843	0	4232611	0
03/10/19	629622	0	91358	68	323529	0	196120	0	8034095	0	354372	0	21539	0	8571843	0	4232611	0
03/11/19	629622	0	91358	0	323529	0	196120	0	8034095	0	354372	0	21539	0	8571843	0	4232611	0
03/12/19	629622	0	91358	0	323529	0	196120	0	8034095	0	354372	0	21539	0	8571843	0	4232611	0
03/13/19	629622	0	91358	0	323529	0	196120	0	8034095	0	354372	0	21539	0	8571843	0	4232611	0
03/14/19	629622	0	91358	0	323529	0	196120	0	8034095	0	354372	0	21539	0	8571843	0	4232611	0
03/15/19	629622	0	91358	0	323529	0	196120	0	8034389	294	354372	0	21539	0	8571843	0	4232611	0
03/16/19	629622	0	91358	0	323529	0	196151	31	8034389	0	354372	0	21539	0	8571843	0	4232611	0
03/17/19	629622	0	91358	0	323529	0	196151	0	8034389	0	354372	0	21539	0	8571843	0	4232611	0
03/18/19	629622	0	91358	0	323529	0	196180	29	8034389	0	354372	0	21539	0	8571843	0	4232611	0
03/19/19	629682	60	91358	0	323529	0	196180	0	8034389	0	354372	0	21539	0	8571843	0	4232611	0
03/20/19	629682	0	91358	0	323529	0	196180	0	8034389	0	354372	0	21539	0	8571843	0	4232611	0
03/21/19	629682	0	91358	0	323529	0	196180	0	8034389	0	354372	0	21539	0	8571843	0	4232611	0
03/22/19	629682	0	91358	0	323698	169	196180	0	8034389	0	354372	0	21539	0	8571843	0	4232611	0
03/23/19	629682	0	91358	0	323698	0	196210	30	8034389	0	354372	0	21539	0	8571843	0	4232611	0
03/24/19	629682	0	91358	0	323698	0	196210	0	8034389	0	354372	0	21539	0	8571843	0	4232611	0
03/25/19	629682	0	91358	0	323698	0	196210	0	8034389	0	354372	0	21539	0	8571843	0	4232611	0
03/26/19	629682	0	91358	0	323698	0	196210	0	8034389	0	354372	0	21539	0	8571843	0	4232611	0
03/27/19	629682	0	91358	0	323698	0	196210	0	8034389	0	354372	0	21539	0	8571843	0	4232611	0
03/28/19	629682	0	91425	67	323698	0	196210	0	8034697	308	354372	0	22246	707	8571843	0	4232611	0
03/29/19	629682	0	91425	0	323698	0	196210	0	8034697	0	354372	0	22246	0	8571843	0	4232611	0
03/30/19	629682	0	91425	0	323698	0	196210	0	8034697	0	354372	0	22246	0	8571843	0	4232611	0
03/31/19	629682	0	91425	0	323698	0	196210	0	8034697	0	354372	0	22246	0	8571843	0	4232611	0

A/B ALR: 0.2 C/D ALR: 0.5 E/F ALR: 0.9 G/H ALR: 1.3 Cell 3 ALR 3.1 Cell 4 ALR 0.0 Cell 5A ALR 5.9 N IMP Sec 0.00 S IMP Sec 0.00
Total A/B: 62 Total C/D: 137 Total E/F: 187 Total G/H: 178 Total Cell 3: 918 Total Cell 4: 12 Total Cell 5A: 1550 Total North: 0 Total South: 0

Secondary Total: 3044

Hyland Facility Associates Daily Leachate Tracking April 2019
 Bay 1 (North Impoundment)

Date	Reading from Impoundment (ft)	North Bay Leachate Level (gal)	Leachate Capacity to Overflow (gal)	Daily Change in Leachate Volume (gal)
03/31/19	3.6	9,223	542,038	1,307
04/01/19	3.6	9,223	542,038	0
04/02/19	3.6	9,223	542,038	0
04/03/19	3.6	9,223	542,038	0
04/04/19	3.6	9,223	542,038	0
04/05/19	3.6	9,223	542,038	0
04/06/19	3.7	10,555	540,706	1,332
04/07/19	3.7	10,555	540,706	0
04/08/19	3.7	10,555	540,706	0
04/09/19	3.7	10,555	540,706	0
04/10/19	3.6	9,223	542,038	-1,332
04/11/19	3.6	9,223	542,038	0
04/12/19	3.6	9,223	542,038	0
04/13/19	3.7	10,555	540,706	1,332
04/14/19	3.7	10,555	540,706	0
04/15/19	3.9	13,294	537,967	2,739
04/16/19	3.1	3,564	547,697	-9,730
04/17/19	3.2	4,303	546,958	739
04/18/19	3.3	5,378	545,883	1,076
04/19/19	3.3	5,378	545,883	0
04/20/19	2.8	2,715	548,546	-2,663
04/21/19	2.8	2,715	548,546	0
04/22/19	2.8	2,715	548,546	0
04/23/19	2.8	2,715	548,546	0
04/24/19	2.8	2,715	548,546	0
04/25/19	1.8	1,067	550,194	-1,648
04/26/19	1.0	348	550,913	-720
04/27/19	1.3	562	550,700	214
04/28/19	1.3	562	550,700	0
04/29/19	1.4	648	550,613	86
04/30/19	0.9	290	550,971	-358

Bay 2 (South Impoundment)

Date	Reading from Impoundment (ft)	South Bay Leachate Level (gal)	Leachate Capacity to Overflow (gal)	Daily Change in Leachate Volume (gal)
03/31/19	4.6	28,203	528,811	12,032
04/01/19	5.1	44,533	512,481	16,330
04/02/19	4.8	34,554	522,460	-9,979
04/03/19	4.3	19,125	537,889	-15,429
04/04/19	4.1	16,171	540,843	-2,954
04/05/19	3.7	10,574	546,439	-5,597
04/06/19	4.3	19,125	537,889	8,551
04/07/19	4.8	34,554	522,460	15,429
04/08/19	5.2	47,988	509,025	13,435
04/09/19	4.8	34,554	522,460	-13,435
04/10/19	4.4	22,091	534,923	-12,463
04/11/19	3.9	13,323	543,691	-8,768
04/12/19	3.7	10,574	546,439	-2,748
04/13/19	4.2	17,635	539,379	7,060
04/14/19	4.7	31,348	525,666	13,713
04/15/19	5.5	58,757	498,257	27,409
04/16/19	5.8	70,129	486,885	11,372
04/17/19	5.7	66,271	490,743	-3,857
04/18/19	5.3	51,511	505,503	-14,760
04/19/19	4.9	37,819	519,195	-13,692
04/20/19	5.1	44,533	512,481	6,714
04/21/19	5.6	62,481	494,533	17,948
04/22/19	6.0	78,045	478,969	15,564
04/23/19	5.6	62,481	494,533	-15,564
04/24/19	5.2	47,988	509,025	-14,492
04/25/19	5.5	58,757	498,257	10,769
04/26/19	5.2	47,988	509,025	-10,769
04/27/19	5.4	55,101	501,913	7,112
04/28/19	5.8	70,129	486,885	15,028
04/29/19	6.2	86,237	470,777	16,108
04/30/19	5.0	41,144	515,870	-45,093

Total Change in Leachate Volume (gal)	Disposed (gal)	Total Leachate Generation (gal)
13,338	0	13,338
16,330	44,045	60,375
-9,979	51,393	41,414
-15,429	42,457	27,028
-2,954	42,845	39,891
-5,597	0	-5,597
9,882	0	9,882
15,429	0	15,429
13,435	50,271	63,706
-13,435	49,865	36,430
-13,794	42,275	28,481
-8,768	42,858	34,090
-2,748	0	-2,748
8,392	0	8,392
13,713	0	13,713
30,148	50,385	80,533
1,642	42,892	44,534
-3,119	50,012	46,893
-13,685	50,389	36,704
-13,692	43,357	29,665
4,051	0	4,051
17,948	0	17,948
15,564	50,439	66,003
-15,564	50,155	34,591
-14,492	42,147	27,655
9,121	49,999	59,120
-11,488	42,939	31,451
7,326	0	7,326
15,028	0	15,028
16,194	21,561	37,755
-45,450	50,202	4,752

Total Leachate Collected **914,494**
 Secondary Leachate Collected 4,366
 Total Primary Collected 910,128
 Total Gallons Hauled 910,486

Date	Secondary Liquid Cell 1 A/B Meter Reading	Secondary Liquid Cell 1 A/B Daily Flow	Secondary Liquid Cell 1 C/D Meter Reading	Secondary Liquid Cell 1 C/D Daily Flow	Secondary Liquid Cell 2 E/F Meter Reading	Secondary Liquid Cell 2 E/F Daily Flow	Secondary Liquid Cell 2 G/H Meter Reading	Secondary Liquid Cell 2 G/H Daily Flow	Secondary Liquid Cell 3 Totalizer Reading gals	Secondary Liquid Cell 3 Daily Flow gals	Secondary Liquid Cell 4 Totalizer Reading gals	Secondary Liquid Cell 4 Daily Flow gals	Secondary Liquid Cell 5A Totalizer Reading gals	Secondary Liquid Cell 5A Daily Flow gals	North Impound-ment Bay Totalizer Reading gals	North Impound-ment Bay Daily Flow gals	South Impound-ment Bay Totalizer Reading gals	South Impound-ment Bay Daily Flow gals
03/31/19	629682	0	91425	0	323698	0	196210	0	8034697	0	354372	0	22246	0	8571843	0	4232611	0
04/01/19	629682	0	91425	0	323698	0	196243	33	8034697	0	354372	0	22246	0	8571843	0	4232611	0
04/02/19	629682	0	91425	0	323698	0	196243	0	8034697	0	354372	0	22246	0	8571843	0	4232611	0
04/03/19	629682	0	91425	0	323698	0	196243	0	8034697	0	354372	0	22246	0	8571843	0	4232611	0
04/04/19	629682	0	91425	0	323698	0	196243	0	8034697	0	354372	0	22246	0	8571843	0	4232611	0
04/05/19	629682	0	91425	0	323698	0	196243	0	8034697	0	354372	0	22246	0	8571843	0	4232611	0
04/06/19	629741	59	91425	0	323698	0	196243	0	8034697	0	354372	0	22246	0	8571843	0	4232611	0
04/07/19	629741	0	91425	0	323698	0	196243	0	8034697	0	354372	0	22246	0	8571843	0	4232611	0
04/08/19	629741	0	91425	0	323698	0	196243	0	8034697	0	354372	0	22246	0	8571843	0	4232611	0
04/09/19	629741	0	91425	0	323698	0	196275	32	8034697	0	354372	0	22246	0	8571843	0	4232611	0
04/10/19	629741	0	91425	0	323698	0	196275	0	8034697	0	354372	0	22971	725	8571843	0	4232611	0
04/11/19	629741	0	91425	0	323698	0	196307	32	8034697	0	354688	316	22971	0	8571843	0	4232611	0
04/12/19	629741	0	91425	0	323698	0	196307	0	8034697	0	354688	0	22971	0	8571843	0	4232611	0
04/13/19	629744	3	91426	1	323706	8	196309	2	8035005	308	354690	2	22971	0	8571843	0	4232611	0
04/14/19	629744	0	91426	0	323706	0	196309	0	8035005	0	354690	0	22971	0	8571843	0	4232611	0
04/15/19	629744	0	91426	0	323858	152	196309	0	8035005	0	354690	0	22971	0	8571843	0	4232611	0
04/16/19	629744	0	91494	68	323858	0	196309	0	8035005	0	354690	0	22971	0	8571843	0	4232611	0
04/17/19	629744	0	91494	0	323858	0	196309	0	8035005	0	354690	0	22971	0	8571843	0	4232611	0
04/18/19	629744	0	91494	0	323858	0	196341	32	8035005	0	354690	0	23689	718	8571843	0	4232611	0
04/19/19	629744	0	91494	0	323858	0	196341	0	8035005	0	354690	0	23689	0	8571843	0	4232611	0
04/20/19	629744	0	91495	1	323863	5	196341	0	8035005	0	354690	0	23689	0	8571843	0	4232611	0
04/21/19	629744	0	91495	0	323863	0	196342	1	8035315	310	354690	0	23689	0	8571843	0	4232611	0
04/22/19	629744	0	91495	0	323863	0	196374	32	8035315	0	354690	0	24468	779	8571843	0	4232611	0
04/23/19	629744	0	91495	0	323863	0	196374	0	8035315	0	354690	0	24468	0	8571843	0	4232611	0
04/24/19	629744	0	91495	0	323863	0	196374	0	8035315	0	354690	0	24468	0	8571843	0	4232611	0
04/25/19	629744	0	91495	0	323863	0	196374	0	8035315	0	354690	0	24468	0	8571843	0	4232611	0
04/26/19	629744	0	91495	0	323863	0	196374	0	8035315	0	355005	315	24468	0	8571843	0	4232611	0
04/27/19	629804	60	91495	0	323863	0	196405	31	8035317	2	355006	1	24469	1	8571843	0	4232611	0
04/28/19	629804	0	91495	0	323863	0	196405	0	8035317	0	355006	0	24469	0	8571843	0	4232611	0
04/29/19	629804	0	91495	0	323863	0	196436	31	8035317	0	355006	0	24469	0	8571843	0	4232611	0
04/30/19	629804	0	91495	0	323863	0	196436	0	8035623	306	355006	0	24469	0	8571843	0	4232611	0

A/B ALR: 0.4 C/D ALR: 0.3 E/F ALR: 0.8 G/H ALR: 1.8 Cell 3 ALR: 3.2 Cell 4 ALR: 2.2 Cell 5A ALR: 8.7
Total A/B: 122 Total C/D: 70 Total E/F: 165 Total G/H: 226 Total Cell 3: 926 Total Cell 4: 634 Total Cell 5A: 2223
N IMP Sec: 0.00 S IMP Sec: 0.00
Total North: 0 Total South: 0

Secondary Total: 4366

Hyland Facility Associates

Daily Leachate Tracking May 2019

Bay 1 (North Impoundment)

Date	Reading from Impoundment (ft)	North Bay Leachate Level (gal)	Leachate Capacity to Overflow (gal)	Daily Change in Leachate Volume (gal)
04/30/19	0.9	290	550,971	-358
05/01/19	2.3	1,770	549,491	1,481
05/02/19	5.5	56,751	494,510	54,981
05/03/19	5.2	46,369	504,892	-10,382
05/04/19	5.1	43,074	508,187	-3,296
05/05/19	5.7	64,085	487,176	21,011
05/06/19	6.2	83,836	467,425	19,752
05/07/19	6.0	75,704	475,557	-8,133
05/08/19	5.8	67,875	483,386	-7,828
05/09/19	5.6	60,377	490,884	-7,499
05/10/19	5.3	49,747	501,514	-10,629
05/11/19	5.7	64,085	487,176	14,337
05/12/19	5.8	67,875	483,386	3,791
05/13/19	5.8	67,875	483,386	0
05/14/19	6.3	88,007	463,254	20,132
05/15/19	6.1	79,735	471,526	-8,272
05/16/19	6.0	75,704	475,557	-4,032
05/17/19	5.7	64,085	487,176	-11,619
05/18/19	5.5	56,751	494,510	-7,334
05/19/19	6.0	75,704	475,557	18,953
05/20/19	6.4	92,248	459,013	16,545
05/21/19	6.2	83,836	467,425	-8,412
05/22/19	6.0	75,704	475,557	-8,133
05/23/19	5.9	71,748	479,513	-3,955
05/24/19	5.6	60,377	490,884	-11,372
05/25/19	5.4	53,208	498,053	-7,169
05/26/19	6.1	79,735	471,526	26,527
05/27/19	6.4	92,248	459,013	12,513
05/28/19	6.9	114,497	436,764	22,249
05/29/19	6.7	105,388	445,873	-9,109
05/30/19	6.5	96,558	454,703	-8,830
05/31/19	6.2	83,836	467,425	-12,722

Bay 2 (South Impoundment)

Date	Reading from Impoundment (ft)	South Bay Leachate Level (gal)	Leachate Capacity to Overflow (gal)	Daily Change in Leachate Volume (gal)
04/30/19	5.0	41,144	515,870	-45,093
05/01/19	5.3	51,511	505,503	10,367
05/02/19	1.6	832	556,182	-50,679
05/03/19	1.7	940	556,074	108
05/04/19	1.7	940	556,074	0
05/05/19	1.5	731	556,282	-209
05/06/19	1.5	731	556,282	0
05/07/19	1.1	404	556,609	-327
05/08/19	1.3	553	556,461	148
05/09/19	1.3	553	556,461	0
05/10/19	1.6	832	556,182	279
05/11/19	1.8	1,056	555,958	224
05/12/19	1.8	1,056	555,958	0
05/13/19	1.8	1,056	555,958	0
05/14/19	2.1	1,449	555,565	393
05/15/19	2.2	1,599	555,415	149
05/16/19	2.3	1,758	555,256	159
05/17/19	2.3	1,758	555,256	0
05/18/19	2.3	1,758	555,256	0
05/19/19	2.3	1,758	555,256	0
05/20/19	2.3	1,758	555,256	0
05/21/19	2.3	1,758	555,256	0
05/22/19	2.3	1,758	555,256	0
05/23/19	2.3	1,758	555,256	0
05/24/19	2.4	1,927	555,087	169
05/25/19	2.4	1,927	555,087	0
05/26/19	2.6	2,296	554,718	368
05/27/19	2.6	2,296	554,718	0
05/28/19	2.6	2,296	554,718	0
05/29/19	2.7	2,495	554,519	199
05/30/19	2.7	2,495	554,519	0
05/31/19	2.7	2,495	554,519	0

Total Change in Leachate Volume (gal)	Disposed (gal)	Total Leachate Generation (gal)
-45,450	50,202	4,752
11,847	42,054	53,901
4,302	50,217	54,519
-10,274	42,873	32,599
-3,296	0	-3,296
20,802	0	20,802
19,752	42,774	62,526
-8,460	50,069	41,609
-7,680	42,548	34,868
-7,499	51,128	43,629
-10,350	42,934	32,584
14,561	0	14,561
3,791	0	3,791
0	50,410	50,410
20,526	48,977	69,503
-8,123	42,244	34,121
-3,872	50,062	46,190
-11,619	42,999	31,380
-7,334	0	-7,334
18,953	0	18,953
16,545	42,872	59,417
-8,412	35,673	27,261
-8,133	35,366	27,233
-3,955	51,080	47,125
-11,202	42,761	31,559
-7,169	0	-7,169
26,895	0	26,895
12,513	0	12,513
22,249	42,853	65,102
-8,910	42,409	33,499
-8,830	50,171	41,341
-12,722	42,875	30,153

Total Leachate Collected **1,030,246**
 Secondary Leachate Collected 4,094
 Total Primary Collected 1,026,152
 Total Gallons Hauled 985,349

Date	Secondary Liquid Cell 1 A/B Meter Reading	Secondary Liquid Cell 1 A/B Daily Flow	Secondary Liquid Cell 1 C/D Meter Reading	Secondary Liquid Cell 1 C/D Daily Flow	Secondary Liquid Cell 2 E/F Meter Reading	Secondary Liquid Cell 2 E/F Daily Flow	Secondary Liquid Cell 2 G/H Meter Reading	Secondary Liquid Cell 2 G/H Daily Flow	Secondary Liquid Cell 3 Totalize Reading gals	Secondary Liquid Cell 3 Daily Flow gals	Secondary Liquid Cell 4 Totalizer Reading gals	Secondary Liquid Cell 4 Daily Flow gals	Secondary Liquid Cell 5A Totalizer Reading gals	Secondary Liquid Cell 5A Daily Flow gals	North Impoundment Bay Totalizer Reading gals	North Impoundment Bay Daily Flow gals	South Impoundment Bay Totalizer Reading gals	South Impoundment Bay Daily Flow gals
04/30/19	629804	0	91495	0	323863	0	196436	0	8035623	306	355006	0	24469	0	8571843	0	4232611	0
05/01/19	629804	0	91495	0	323863	0	196436	0	8035623	0	355006	0	25158	689	8571843	0	4232611	0
05/02/19	629804	0	91495	0	323863	0	196436	0	8035623	0	355006	0	25158	0	8571843	0	4232611	0
05/03/19	629804	0	91495	0	323863	0	196436	0	8035623	0	355006	0	25158	0	8571843	0	4232611	0
05/04/19	629804	0	91495	0	323863	0	196436	0	8035623	0	355006	0	25158	0	8571843	0	4232611	0
05/05/19	629804	0	91562	67	323863	0	196469	33	8035623	0	355014	8	25159	1	8571843	0	4232611	0
05/06/19	629804	0	91562	0	323863	0	196469	0	8035623	0	355014	0	25159	0	8571843	0	4232611	0
05/07/19	629804	0	91562	0	323863	0	196469	0	8035623	0	355014	0	25159	0	8571843	0	4232611	0
05/08/19	629804	0	91562	0	323863	0	196502	33	8035623	0	355014	0	25944	785	8571843	0	4232611	0
05/09/19	629804	0	91562	0	323863	0	196502	0	8035623	0	355014	0	25944	0	8571843	0	4232611	0
05/10/19	629804	0	91562	0	323863	0	196502	0	8035623	0	355014	0	25944	0	8571843	0	4232611	0
05/11/19	629804	0	91562	0	323863	0	196502	0	8035623	0	355014	0	25944	0	8571843	0	4232611	0
05/12/19	629804	0	91562	0	323863	0	196502	0	8035623	0	355014	0	25944	0	8571843	0	4232611	0
05/13/19	629804	0	91562	0	323863	0	196534	32	8035932	309	355014	0	25944	0	8571843	0	4232611	0
05/14/19	629804	0	91562	0	323863	0	196534	0	8035932	0	355014	0	25944	0	8571843	0	4232611	0
05/15/19	629804	0	91562	0	323863	0	196534	0	8035932	0	355014	0	25944	0	8571843	0	4232611	0
05/16/19	629804	0	91562	0	324022	159	196566	32	8036244	312	355329	315	25944	0	8571843	0	4232611	0
05/17/19	629804	0	91562	0	324022	0	196566	0	8036244	0	355329	0	26716	772	8571843	0	4232611	0
05/18/19	629805	1	91562	0	324031	9	196567	1	8036245	1	355335	6	26716	0	8571843	0	4232611	0
05/19/19	629864	59	91562	0	324031	0	196600	33	8036245	0	355335	0	26716	0	8571843	0	4232611	0
05/20/19	629864	0	91562	0	324031	0	196600	0	8036245	0	355335	0	26716	0	8571843	0	4232611	0
05/21/19	629864	0	91562	0	324031	0	196600	0	8036245	0	355335	0	26716	0	8571843	0	4232611	0
05/22/19	629864	0	91562	0	324031	0	196600	0	8036245	0	355335	0	26716	0	8571843	0	4232611	0
05/23/19	629864	0	91631	69	324031	0	196600	0	8036245	0	355335	0	26716	0	8571843	0	4232611	0
05/24/19	629864	0	91631	0	324031	0	196632	32	8036245	0	355335	0	26716	0	8571843	0	4232611	0
05/25/19	629864	0	91631	0	324031	0	196632	0	8036245	0	355335	0	26716	0	8571843	0	4232611	0
05/26/19	629864	0	91631	0	324031	0	196632	0	8036549	304	355335	0	26716	0	8571843	0	4240653	NA ⁽¹⁾
05/27/19	629864	0	91631	0	324031	0	196632	0	8036549	0	355335	0	26716	0	8571843	0	4276666	NA
05/28/19	629864	0	91631	0	324031	0	196632	0	8036549	0	355335	0	26716	0	8571843	0	4312677	NA
05/29/19	629864	0	91631	0	324031	0	196632	0	8036549	0	355335	0	26716	0	8571843	0	4348690	NA
05/30/19	629864	0	91631	0	324031	0	196664	32	8036549	0	355335	0	26716	0	8571843	0	4362863	NA
05/31/19	629864	0	91631	0	324031	0	196664	0	8036549	0	355335	0	26716	0	8571843	0	4362863	0
	A/B ALR:	0.2	C/D ALR:	0.5	E/F ALR:	0.8	G/H ALR:	1.7	Cell 3 ALR	3.1	Cell 4 ALR	1.1	Cell 5A ALR	8.5	N IMP Sec	0.00	S IMP Sec	0.00
	Total A/B:	60	Total C/D:	136	Total E/F:	168	Total G/H:	228	Total Cell 3:	926	Total Cell 4:	329	Total Cell 5A:	2247	Total North:	0	Total South:	0

Note: 1.) Flow meter issues from May 26th to May 30th. No real flow was observed.

Secondary Total: 4094

Hyland Facility Associates

Daily Leachate Tracking June 2019

Bay 1 (North Impoundment)

Date	Manual Reading from Impoundment (ft)	North Bay Leachate Level (gal)	Leachate Capacity to Overflow (gal)	Daily Change in Leachate Volume (gal)
05/31/19	6.2	83,836	467,425	-12,722
06/01/19	6.0	75,704	475,557	-8,133
06/02/19	6.5	96,558	454,703	20,855
06/03/19	6.9	114,497	436,764	17,939
06/04/19	6.6	100,939	450,322	-13,558
06/05/19	6.3	88,007	463,254	-12,931
06/06/19	6.9	114,497	436,764	26,490
06/07/19	7.8	159,114	392,147	44,617
06/08/19	8.7	209,948	341,314	50,834
06/09/19	8.8	215,996	335,265	6,049
06/10/19	8.8	215,996	335,265	0
06/11/19	8.0	169,856	381,405	-46,141
06/12/19	7.4	138,533	412,728	-31,323
06/13/19	6.8	109,908	441,353	-28,625
06/14/19	6.0	75,704	475,557	-34,204
06/15/19	5.8	67,875	483,386	-7,828
06/16/19	6.2	83,836	467,425	15,961
06/17/19	6.6	100,939	450,322	17,102
06/18/19	6.3	88,007	463,254	-12,931
06/19/19	6.2	83,836	467,425	-4,171
06/20/19	6.0	75,704	475,557	-8,133
06/21/19	6.2	83,836	467,425	8,133
06/22/19	6.2	83,836	467,425	0
06/23/19	6.2	83,836	467,425	0
06/24/19	6.2	83,836	467,425	0
06/25/19	6.3	88,007	463,254	4,171
06/26/19	6.3	88,007	463,254	0
06/27/19	6.3	88,007	463,254	0
06/28/19	6.2	83,836	467,425	-4,171
06/29/19	6.3	88,007	463,254	4,171
06/30/2019 ⁽¹⁾	6.3	88,007	463,254	0

Bay 2 (South Impoundment)

Date	Manual Reading from Impoundment (ft)	South Bay Leachate Level (gal)	Leachate Capacity to Overflow (gal)	Daily Change in Leachate Volume (gal)
05/31/19	2.7	2,495	554,519	0
06/01/19	2.7	2,495	554,519	0
06/02/19	2.9	2,922	554,091	428
06/03/19	2.9	2,922	554,091	0
06/04/19	2.9	2,922	554,091	0
06/05/19	2.9	2,922	554,091	0
06/06/19	3.4	6,639	550,375	3,716
06/07/19	3.5	7,926	549,088	1,287
06/08/19	3.5	7,926	549,088	0
06/09/19	5.8	70,129	486,885	62,203
06/10/19	7.6	151,635	405,379	81,506
06/11/19	8.0	173,004	384,010	21,369
06/12/19	8.1	178,538	378,476	5,534
06/13/19	8.1	178,538	378,476	0
06/14/19	8.1	178,538	378,476	0
06/15/19	8.1	178,538	378,476	0
06/16/19	8.1	178,538	378,476	0
06/17/19	8.1	178,538	378,476	0
06/18/19	8.2	184,154	372,860	5,615
06/19/19	8.2	184,154	372,860	0
06/20/19	8.0	173,004	384,010	-11,150
06/21/19	7.8	162,168	394,846	-10,836
06/22/19	7.9	167,548	389,466	5,380
06/23/19	8.2	184,154	372,860	16,606
06/24/19	8.2	184,154	372,860	0
06/25/19	7.8	162,168	394,846	-21,986
06/26/19	7.6	151,635	405,379	-10,533
06/27/19	7.2	131,477	425,537	-20,158
06/28/19	6.8	112,521	444,492	-18,955
06/29/2019 ⁽²⁾	6.9	117,151	439,863	4,630
06/30/2019 ⁽²⁾	7.4	141,404	415,609	24,253

Total Change in Leachate Volume (gal)	Disposed (gal)	Total Leachate Generation (gal)
-12,722	42,875	30,153
-8,133	0	-8,133
21,283	0	21,283
17,939	43,019	60,958
-13,558	50,011	36,453
-12,931	42,294	29,363
30,206	58,960	89,166
45,904	66,012	111,916
50,834	0	50,834
68,252	0	68,252
81,506	79,379	160,885
-24,771	65,459	40,688
-25,789	71,674	45,885
-28,625	79,431	50,806
-34,204	50,892	16,688
-7,828	0	-7,828
15,961	0	15,961
17,102	28,378	45,480
-7,316	58,875	51,559
-4,171	49,798	45,627
-19,283	57,698	38,415
-2,703	50,742	48,039
5,380	0	5,380
16,606	0	16,606
0	65,279	65,279
-17,815	57,821	40,006
-10,533	49,911	39,378
-20,158	49,849	29,691
-23,126	20,970	-2,156
8,801	0	8,801
24,253	0	24,253

Total Leachate Collected	1,239,533
Secondary Leachate Collected	5,688
Total Primary Collected	1,233,845
Total Gallons Hauled	1,096,452

Notes: 1.) The manual reading for the North Impoundment on June 30, 2019 has been updated since the information was submitted to the NYSDEC as part of the 2nd quarter report. This update has changed the North Bay Leachate Level, Leachate Capacity to Overflow, Daily Change in Leachate Volume, Total Change in Leachate Volume, Total Leachate Generation, Total Leachate Collected, and Total Primary Collected values.

2.) The manual readings for the South Impoundment on June 29, 2019 and June 30, 2019 have been updated since the information was submitted to the NYSDEC as part of the 2nd quarter report. These updates have changed the South Bay Leachate Level, Leachate Capacity to Overflow, Daily Change in Leachate Volume, Total Change in Leachate Volume, Total Leachate Generation, Total Leachate Collected, and Total Primary Collected values.

Date	Secondary Liquid Cell 1 A/B Meter Reading	Secondary Liquid Cell 1 A/B Daily Flow	Secondary Liquid Cell 1 C/D Meter Reading	Secondary Liquid Cell 1 C/D Daily Flow	Secondary Liquid Cell 2 E/F Meter Reading	Secondary Liquid Cell 2 E/F Daily Flow	Secondary Liquid Cell 2 G/H Meter Reading	Secondary Liquid Cell 2 G/H Daily Flow	Secondary Liquid Cell 3 Totalizer Reading gals	Secondary Liquid Cell 3 Daily Flow gals	Secondary Liquid Cell 4 Totalizer Reading gals	Secondary Liquid Cell 4 Daily Flow gals	Secondary Liquid Cell 5A Totalizer Reading gals	Secondary Liquid Cell 5A Daily Flow gals	North Impoundment Bay Totalizer Reading gals	North Impoundment Bay Daily Flow gals	South Impoundment Bay Totalizer Reading gals	South Impoundment Bay Daily Flow gals
05/31/19	629864	0	91631	0	324031	0	196664	0	8036549	0	355335	0	26716	0	8571843	0	4362863	0
06/01/19	629865	1	91632	1	324039	8	196664	0	8036551	2	355340	5	27453	737	8571843	0	4362863	0
06/02/19	629865	0	91632	0	324039	0	196664	0	8036551	0	355340	0	27453	0	8571843	0	4362863	0
06/03/19	629865	0	91632	0	324039	0	196697	33	8036551	0	355340	0	27453	0	8571843	0	4362863	0
06/04/19	629865	0	91632	0	324039	0	196697	0	8036551	0	355340	0	27453	0	8571843	0	4362863	0
06/05/19	629865	0	91632	0	324039	0	196697	0	8036551	0	355340	0	27453	0	8571843	0	4362863	0
06/06/19	629865	0	91632	0	324039	0	196697	0	8036854	303	355657	317	27453	0	8571843	0	4362863	0
06/07/19	629865	0	91632	0	324039	0	196697	0	8036854	0	355657	0	28226	773	8571843	0	4362863	0
06/08/19	629866	1	91633	1	324048	9	196730	33	8036855	1	355665	8	28229	3	8571843	0	4362863	0
06/09/19	629866	0	91633	0	324048	0	196730	0	8036855	0	355665	0	28229	0	8571843	0	4362863	0
06/10/19	629866	0	91633	0	324048	0	196730	0	8036855	0	355665	0	28229	0	8571843	0	4362863	0
06/11/19	629866	0	91633	0	324048	0	196730	0	8036855	0	355665	0	28229	0	8571843	0	4362863	0
06/12/19	629866	0	91702	69	324048	0	196763	33	8036855	0	355665	0	28229	0	8571843	0	4362863	0
06/13/19	629866	0	91702	0	324048	0	196763	0	8036855	0	355665	0	28229	0	8571843	0	4362863	0
06/14/19	629870	4	91703	1	324056	8	196764	1	8036856	1	355674	9	28229	0	8571843	0	4362863	0
06/15/19	629870	0	91703	0	324056	0	196764	0	8036856	0	355674	0	28229	0	8571843	0	4362863	0
06/16/19	629870	0	91703	0	324056	0	196764	0	8037161	305	355674	0	28229	0	8571843	0	4362863	0
06/17/19	629870	0	91703	0	324056	0	196764	0	8037161	0	355674	0	28229	0	8571843	0	4362863	0
06/18/19	629931	61	91703	0	324056	0	196797	33	8037161	0	355674	0	28229	0	8571843	0	4362863	0
06/19/19	629931	0	91703	0	324056	0	196797	0	8037161	0	355674	0	28229	0	8571843	0	4362863	0
06/20/19	629931	0	91703	0	324056	0	196797	0	8037161	0	355674	0	28229	0	8571843	0	4362863	0
06/21/19	629931	0	91703	0	324231	175	196797	0	8037161	0	355674	0	29047	818	8571843	0	4362863	0
06/22/19	629932	1	91704	1	324239	8	196831	34	8037162	1	355678	4	29050	3	8571843	0	4362863	0
06/23/19	629932	0	91704	0	324239	0	196831	0	8037162	0	355678	0	29050	0	8571843	0	4362863	0
06/24/19	629932	0	91704	0	324239	0	196831	0	8037162	0	355678	0	29050	0	8571843	0	4362863	0
06/25/19	629932	0	91704	0	324239	0	196831	0	8037162	0	355678	0	29050	0	8571843	0	4362863	0
06/26/19	629932	0	91704	0	324239	0	196831	0	8037162	0	355678	0	29050	0	8571843	0	4362863	0
06/27/19	629932	0	91704	0	324239	0	196831	0	8037162	0	355678	0	29842	792	8571843	0	4362863	0
06/28/19	629932	0	91704	0	324239	0	196865	34	8037472	310	355954	276	29936	94	8571843	0	4362863	0
06/29/19	629943	11	91711	7	324249	10	196865	0	8037474	2	355954	0	29936	0	8571843	0	4362863	0
06/30/2019 ⁽¹⁾	629943	0	91711	0	324249	0	196870	5	8037474	0	356293	339	29936	0	8571844	1	4362864	1
A/B ALR:	0.3		C/D ALR:	0.3	E/F ALR:	1.0	G/H ALR:	1.6	Cell 3 ALR	3.2	Cell 4 ALR	3.4	Cell 5A ALR	12.6	N IMP Sec	0.14	S IMP Sec	0.14
Total A/B:	79		Total C/D:	80	Total E/F:	218	Total G/H:	206	Total Cell 3:	925	Total Cell 4:	958	Total Cell 5A:	3220	Total North:	1	Total South:	1

Note: 1.) The Secondary Cell Meter Reading on June 30, 2019 has been updated for Cells 2 G/H, Cell 4, North Impoundment, and South Impoundment since this information was submitted to the NYSDEC as part of the 2nd quarter report. These updates have changed the corresponding daily flow values, the total flow values, ALR values, and the Secondary Total value.

Secondary Total: 5688

Hyland Facility Associates

Daily Leachate Tracking July 2019

Bay 1 (North Impoundment)

Date	Manual Reading from Impoundment (ft)	North Bay Leachate Level (gal)	Leachate Capacity to Overflow (gal)	Daily Change in Leachate Volume (gal)
06/30/19	6.3	88,007	463,254	0
07/01/19	6.3	88,007	463,254	0
07/02/19	6.2	83,836	467,425	-4,171
07/03/19	6.2	83,836	467,425	0
07/04/19	6.3	88,007	463,254	4,171
07/05/19	6.3	88,007	463,254	0
07/06/19	6.3	88,007	463,254	0
07/07/19	6.5	96,558	454,703	8,551
07/08/19	6.5	96,558	454,703	0
07/09/19	6.5	96,558	454,703	0
07/10/19	6.5	96,558	454,703	0
07/11/19	6.4	92,248	459,013	-4,310
07/12/19	6.4	92,248	459,013	0
07/13/19	6.4	92,248	459,013	0
07/14/19	6.4	92,248	459,013	0
07/15/19	6.4	92,248	459,013	0
07/16/19	6.4	92,248	459,013	0
07/17/19	6.4	92,248	459,013	0
07/18/19	6.5	96,558	454,703	4,310
07/19/19	6.5	96,558	454,703	0
07/20/19	6.5	96,558	454,703	0
07/21/19	6.5	96,558	454,703	0
07/22/19	6.5	96,558	454,703	0
07/23/19	6.6	100,939	450,322	4,380
07/24/19	6.6	100,939	450,322	0
07/25/19	6.6	100,939	450,322	0
07/26/19	6.6	100,939	450,322	0
07/27/19	6.5	96,558	454,703	-4,380
07/28/19	6.5	96,558	454,703	0
07/29/19	6.6	100,939	450,322	4,380
07/30/19	6.6	100,939	450,322	0
07/31/19	6.8	109,908	441,353	8,969

Bay 2 (South Impoundment)

Date	Manual Reading from Impoundment (ft)	South Bay Leachate Level (gal)	Leachate Capacity to Overflow (gal)	Daily Change in Leachate Volume (gal)
06/30/19	7.4	141,404	415,609	24,253
07/01/19	7.7	156,863	400,150	15,459
07/02/19	7.2	131,477	425,537	-25,387
07/03/19	7.2	131,477	425,537	0
07/04/19	7.1	126,627	430,387	-4,850
07/05/19	7.5	146,482	410,532	19,855
07/06/19	7.1	126,627	430,387	-19,855
07/07/19	7.9	167,548	389,466	40,921
07/08/19	8.2	184,154	372,860	16,606
07/09/19	7.9	167,548	389,466	-16,606
07/10/19	7.5	146,482	410,532	-21,066
07/11/19	7.2	131,477	425,537	-15,005
07/12/19	6.8	112,521	444,492	-18,955
07/13/19	6.5	99,059	457,955	-13,463
07/14/19	6.9	117,151	439,863	18,092
07/15/19	7.2	131,477	425,537	14,326
07/16/19	6.9	117,151	439,863	-14,326
07/17/19	6.5	99,059	457,955	-18,092
07/18/19	6.4	94,714	462,300	-4,345
07/19/19	5.9	74,053	482,961	-20,660
07/20/19	5.6	62,481	494,533	-11,572
07/21/19	6.0	78,045	478,969	15,564
07/22/19	6.5	99,059	457,955	21,014
07/23/19	6.4	94,714	462,300	-4,345
07/24/19	5.9	74,053	482,961	-20,660
07/25/19	5.6	62,481	494,533	-11,572
07/26/19	5.0	41,144	515,870	-21,337
07/27/19	4.7	31,348	525,666	-9,796
07/28/19	5.2	47,988	509,025	16,640
07/29/19	5.6	62,481	494,533	14,492
07/30/19	5.1	44,533	512,481	-17,948
07/31/19	4.3	19,125	537,889	-25,408

Total Change in Leachate Volume (gal)	Disposed (gal)	Total Leachate Generation (gal)
24,253	0	24,253
15,459	49,187	64,646
-29,558	42,775	13,217
0	42,943	42,943
-679	0	-679
19,855	57,531	77,386
-19,855	0	-19,855
49,472	0	49,472
16,606	57,293	73,899
-16,606	57,300	40,694
-21,066	49,856	28,790
-19,315	57,581	38,266
-18,955	49,834	30,879
-13,463	0	-13,463
18,092	0	18,092
14,326	50,494	64,820
-14,326	57,911	43,585
-18,092	64,284	46,192
-35	57,356	57,321
-20,660	50,129	29,469
-11,572	0	-11,572
15,564	0	15,564
21,014	57,499	78,513
35	57,288	57,323
-20,660	49,515	28,855
-11,572	57,583	46,011
-21,337	43,255	21,918
-14,176	0	-14,176
16,640	0	16,640
18,872	57,232	76,104
-17,948	57,545	39,597
-16,439	35,221	18,782

Total Leachate Collected **1,059,233**
 Secondary Leachate Collected 24,804
 Total Primary Collected 1,034,429
 Total Gallons Hauled 1,159,612

Date	Secondary Liquid Cell 1 A/B Meter Reading	Secondary Liquid Cell 1 A/B Daily Flow	Secondary Liquid Cell 1 C/D Meter Reading	Secondary Liquid Cell 1 C/D Daily Flow	Secondary Liquid Cell 2 E/F Meter Reading	Secondary Liquid Cell 2 E/F Daily Flow	Secondary Liquid Cell 2 G/H Meter Reading	Secondary Liquid Cell 2 G/H Daily Flow	Secondary Liquid Cell 3 Totalize Reading gals	Secondary Liquid Cell 3 Daily Flow gals	Secondary Liquid Cell 4 Totalizer Reading gals	Secondary Liquid Cell 4 Daily Flow gals	Secondary Liquid Cell 5A Totalizer Reading gals	Secondary Liquid Cell 5A Daily Flow gals ⁽¹⁾	North Impoundment Bay Totalizer Reading gals	North Impoundment Bay Daily Flow gals	South Impoundment Bay Totalizer Reading gals	South Impoundment Bay Daily Flow gals
06/30/19	629943	0	91711	0	324249	0	196870	5	8037474	0	356293	339	29936	0	8571844	1	4362864	1
07/01/19	629943	0	91711	0	324249	0	196870	0	8037474	0	356293	0	32750	2814	8571844	0	4362864	0
07/02/19	629943	0	91711	0	324249	0	196870	0	8037474	0	356293	0	32750	0	8571844	0	4362864	0
07/03/19	629943	0	91711	0	324249	0	196903	33	8037474	0	356293	0	32750	0	8571844	0	4362864	0
07/04/19	629943	0	91711	0	324249	0	196903	0	8037474	0	356293	0	34407	1657	8571844	0	4362864	0
07/05/19	629943	0	91711	0	324249	0	196903	0	8037474	0	356293	0	35274	867	8571844	0	4362864	0
07/06/19	629946	3	91713	2	324260	11	196905	2	8037487	13	356293	0	36108	834	8571844	0	4362864	0
07/07/19	629946	0	91782	69	324260	0	196905	0	8037487	0	356416	123	40838	4730	8571844	0	4362864	0
07/08/19	629946	0	91782	0	324260	0	196938	33	8037565	78	356416	0	44454	3616	8571844	0	4362864	0
07/09/19	629946	0	91782	0	324260	0	196938	0	8037792	227	356923	NA ⁽²⁾	44454	0	8571844	0	4362864	0
07/10/19	629946	0	91782	0	324260	0	196938	0	8037792	0	358102	NA	45269	815	8571844	0	4362864	0
07/11/19	629946	0	91782	0	324260	0	196938	0	8037792	0	358768	NA	46071	802	8571844	0	4362864	0
07/12/19	629946	0	91782	0	324260	0	196971	33	8037792	0	358768	NA	46903	832	8571844	0	4362864	0
07/13/19	629947	1	91782	0	324268	8	196972	1	8037798	6	358768	NA	47746	843	8571844	0	4362864	0
07/14/19	629947	0	91782	0	324268	0	196972	0	8037798	0	359092	NA	47746	0	8571844	0	4362864	0
07/15/19	629947	0	91782	0	324268	0	196972	0	8037798	0	359566	NA	47746	0	8571844	0	4362864	0
07/16/19	629947	0	91782	0	324268	0	196972	0	8037798	0	360157	NA	47746	0	8571844	0	4362864	0
07/17/19	629947	0	91782	0	324268	0	196972	0	8037798	0	360616	NA	48587	841	8571844	0	4362864	0
07/18/19	629947	0	91782	0	324268	0	197006	34	8037798	0	360617	NA	50078	1491	8571844	0	4362864	0
07/19/19	629947	0	91782	0	324268	0	197006	0	8037798	0	360915	NA	50633	555	8571844	0	4362864	0
07/20/19	629954	7	91787	5	324276	8	197009	3	8037798	0	361381	NA	50660	27	8571844	0	4362864	0
07/21/19	629954	0	91787	0	324276	0	197009	0	8038096	298	361631	NA	50794	134	8571844	0	4362864	0
07/22/19	629954	0	91787	0	324276	0	197009	0	8038096	0	361902	NA	50794	0	8571844	0	4362864	0
07/23/19	629954	0	91787	0	324276	0	197009	0	8038096	0	361902	NA	51137	343	8571844	0	4362864	0
07/24/19	629954	0	91787	0	324276	0	197043	34	8038096	0	361902	NA	51380	243	8571844	0	4362864	0
07/25/19	629954	0	91787	0	324276	0	197043	0	8038096	0	362013	NA	51600	220	8571844	0	4362864	0
07/26/19	629954	0	91787	0	324276	0	197043	0	8038096	0	362013	0	51882	282	8571844	0	4362864	0
07/27/19	629954	0	91787	0	324276	0	197043	0	8038096	0	362013	0	51911	29	8571844	0	4362864	0
07/28/19	629958	4	91791	4	324286	10	197046	3	8038098	2	362013	0	51911	0	8571844	0	4362864	0
07/29/19	629958	0	91791	0	324286	0	197046	0	8038098	0	363399	1386	51911	0	8571844	0	4362864	0
07/30/19	629958	0	91791	0	324286	0	197046	0	8038098	0	363399	0	52124	213	8571844	0	4362864	0
07/31/19	629958	0	91791	0	324286	0	197079	33	8038098	0	363399	0	52266	142	8571844	0	4362864	0
	A/B ALR:	0.1	C/D ALR:	0.3	E/F ALR:	0.2	G/H ALR:	1.6	Cell 3 ALR	2.1	Cell 4 ALR	5.1	Cell 5A ALR	84.7	N IMP Sec	0.00	S IMP Sec	0.00
	Total A/B:	15	Total C/D:	80	Total E/F:	37	Total G/H:	209	Total Cell 3:	624	Total Cell 4:	1509	Total Cell 5A:	22330	Total North:	0	Total South:	0

Notes: 1.) Elevated flows in Cell 5A during July were a result of the tie-in being open during construction of Cell 5B. NYSDEC was notified of the exceedance on July 8, 2019.

2.) Flow meter issues from July 9th to July 25th. No real flow was observed.

Secondary Total: 24804

Hyland Facility Associates

Daily Leachate Tracking August 2019

Bay 1 (North Impoundment)

Date	Manual Reading from Impoundment (ft)	North Bay Leachate Level (gal)	Leachate Capacity to Overflow (gal)	Daily Change in Leachate Volume (gal)
07/31/19	6.8	109,908	441,353	8,969
08/01/19	7.0	119,156	432,105	9,248
08/02/19	6.7	105,388	445,873	-13,768
08/03/19	6.6	100,939	450,322	-4,450
08/04/19	6.9	114,497	436,764	13,558
08/05/19	7.2	128,694	422,567	14,197
08/06/19	7.0	119,156	432,105	-9,538
08/07/19	6.8	109,908	441,353	-9,248
08/08/19	6.5	96,558	454,703	-13,349
08/09/19	6.1	79,735	471,526	-16,823
08/10/19	5.8	67,875	483,386	-11,860
08/11/19	6.2	83,836	467,425	15,961
08/12/19	6.6	100,939	450,322	17,102
08/13/19	6.3	88,007	463,254	-12,931
08/14/19	5.9	71,748	479,513	-16,259
08/15/19	5.5	56,751	494,510	-14,997
08/16/19	5.1	43,074	508,187	-13,677
08/17/19	5.0	39,861	511,400	-3,213
08/18/19	5.5	56,751	494,510	16,890
08/19/19	5.9	71,748	479,513	14,997
08/20/19	5.6	60,377	490,884	-11,372
08/21/19	5.4	53,208	498,053	-7,169
08/22/19	5.5	56,751	494,510	3,543
08/23/19	5.7	64,085	487,176	7,334
08/24/19	5.9	71,748	479,513	7,664
08/25/19	6.3	88,007	463,254	16,259
08/26/19	6.7	105,388	445,873	17,381
08/27/19	6.5	96,558	454,703	-8,830
08/28/19	6.1	79,735	471,526	-16,823
08/29/19	5.8	67,875	483,386	-11,860
08/30/19	5.4	53,208	498,053	-14,667
08/31/19	5.2	46,369	504,892	-6,839

Bay 2 (South Impoundment)

Date	Manual Reading from Impoundment (ft)	South Bay Leachate Level (gal)	Leachate Capacity to Overflow (gal)	Daily Change in Leachate Volume (gal)
07/31/19	4.3	19,125	537,889	-25,408
08/01/19	4.5	25,117	531,897	5,992
08/02/19	4.5	25,117	531,897	0
08/03/19	4.5	25,117	531,897	0
08/04/19	4.5	25,117	531,897	0
08/05/19	4.5	25,117	531,897	0
08/06/19	4.5	25,117	531,897	0
08/07/19	4.6	28,203	528,811	3,086
08/08/19	4.6	28,203	528,811	0
08/09/19	4.6	28,203	528,811	0
08/10/19	4.6	28,203	528,811	0
08/11/19	4.6	28,203	528,811	0
08/12/19	4.6	28,203	528,811	0
08/13/19	4.6	28,203	528,811	0
08/14/19	4.6	28,203	528,811	0
08/15/19	4.7	31,348	525,666	3,146
08/16/19	4.7	31,348	525,666	0
08/17/19	4.7	31,348	525,666	0
08/18/19	4.7	31,348	525,666	0
08/19/19	4.7	31,348	525,666	0
08/20/19	4.7	31,348	525,666	0
08/21/19	4.7	31,348	525,666	0
08/22/19	4.9	37,819	519,195	6,471
08/23/19	4.9	37,819	519,195	0
08/24/19	4.9	37,819	519,195	0
08/25/19	4.9	37,819	519,195	0
08/26/19	4.9	37,819	519,195	0
08/27/19	4.9	37,819	519,195	0
08/28/19	4.9	37,819	519,195	0
08/29/19	5.0	41,144	515,870	3,325
08/30/19	5.0	41,144	515,870	0
08/31/19	5.0	41,144	515,870	0

Total Change in Leachate Volume (gal)	Disposed (gal)	Total Leachate Generation (gal)
-16,439	35,221	18,782
15,240	49,526	64,766
-13,768	35,136	21,368
-4,450	0	-4,450
13,558	0	13,558
14,197	42,409	56,606
-9,538	42,477	32,939
-6,162	49,487	43,325
-13,349	57,288	43,939
-16,823	50,054	33,231
-11,860	0	-11,860
15,961	0	15,961
17,102	57,434	74,536
-12,931	57,339	44,408
-16,259	49,367	33,108
-11,851	56,659	44,808
-13,677	35,463	21,786
-3,213	0	-3,213
16,890	0	16,890
14,997	42,553	57,550
-11,372	42,608	31,236
-7,169	49,439	42,270
10,014	42,581	52,595
7,334	35,272	42,606
7,664	0	7,664
16,259	0	16,259
17,381	42,507	59,888
-8,830	49,579	40,749
-16,823	49,288	32,465
-8,535	49,745	41,210
-14,667	42,299	27,632
-6,839	0	-6,839

Total Leachate Collected **986,991**
 Secondary Leachate Collected 4,741
 Total Primary Collected 982,250
 Total Gallons Hauled 1,028,510

Date	Secondary Liquid Cell 1 A/B Meter Reading	Secondary Liquid Cell 1 A/B Daily Flow	Secondary Liquid Cell 1 C/D Meter Reading	Secondary Liquid Cell 1 C/D Daily Flow	Secondary Liquid Cell 2 E/F Meter Reading	Secondary Liquid Cell 2 E/F Daily Flow	Secondary Liquid Cell 2 G/H Meter Reading	Secondary Liquid Cell 2 G/H Daily Flow	Secondary Liquid Cell 3 Totalize Reading gals	Secondary Liquid Cell 3 Daily Flow gals	Secondary Liquid Cell 4 Totalizer Reading gals	Secondary Liquid Cell 4 Daily Flow gals	Secondary Liquid Cell 5A Totalizer Reading gals	Secondary Liquid Cell 5A Daily Flow gals	North Impoundment Bay Totalizer Reading gals	North Impoundment Bay Daily Flow gals ⁽¹⁾	South Impoundment Bay Totalizer Reading gals	South Impoundment Bay Daily Flow gals
07/31/19	629958	0	91791	0	324286	0	197079	33	8038098	0	363399	0	52266	142	8571844	0	4362864	0
08/01/19	629969	11	91801	10	324297	11	197088	9	8038154	56	363399	0	52394	128	8571844	0	4362864	0
08/02/19	629969	0	91801	0	324297	0	197088	0	8038154	0	363399	0	52547	153	8571844	0	4362864	0
08/03/19	629969	0	91801	0	324297	0	197088	0	8038154	0	363399	0	52725	178	8571844	0	4362864	0
08/04/19	629969	0	91801	0	324297	0	197088	0	8038154	0	363399	0	52725	0	8571852	8	4362864	0
08/05/19	629969	0	91801	0	324297	0	197088	0	8038154	0	363399	0	52725	0	8571856	4	4362864	0
08/06/19	629969	0	91801	0	324495	198	197088	0	8038154	0	363399	0	53067	342	8571856	0	4362864	0
08/07/19	629969	0	91801	0	324495	0	197088	0	8038154	0	363399	0	53244	177	8571860	4	4362864	0
08/08/19	629969	0	91869	68	324495	0	197121	33	8038456	302	363399	0	53385	141	8571860	0	4362864	0
08/09/19	629969	0	91869	0	324495	0	197121	0	8038456	0	363399	0	53532	147	8571865	5	4362864	0
08/10/19	629973	4	91872	3	324571	76	197123	2	8038456	0	363399	0	53694	162	8572119	254	4362864	0
08/11/19	629973	0	91872	0	324571	0	197123	0	8038456	0	363399	0	53694	0	8572119	0	4362864	0
08/12/19	629973	0	91872	0	324571	0	197123	0	8038456	0	363399	0	53694	0	8572119	0	4362864	0
08/13/19	629973	0	91872	0	324571	0	197123	0	8038456	0	363399	0	53938	244	8572119	0	4362864	0
08/14/19	629973	0	91872	0	324571	0	197123	0	8038456	0	363399	0	54067	129	8572119	0	4362864	0
08/15/19	629973	0	91872	0	324571	0	197123	0	8038456	0	363399	0	54188	121	8572119	0	4362864	0
08/16/19	629973	0	91872	0	324571	0	197156	33	8038456	0	363399	0	54244	56	8572119	0	4362864	0
08/17/19	629974	1	91872	0	324581	10	197157	1	8038460	4	363399	0	54341	97	8572119	0	4362864	0
08/18/19	629974	0	91872	0	324581	0	197157	0	8038460	0	363399	0	54426	85	8572119	0	4362864	0
08/19/19	629974	0	91872	0	324581	0	197157	0	8038460	0	363399	0	54426	0	8572119	0	4362864	0
08/20/19	629974	0	91872	0	324581	0	197157	0	8038460	0	363399	0	54568	142	8572119	0	4362864	0
08/21/19	629974	0	91872	0	324581	0	197157	0	8038460	0	363399	0	54658	90	8572119	0	4362864	0
08/22/19	629974	0	91872	0	324581	0	197157	0	8038460	0	363399	0	54758	100	8572119	0	4362869	5
08/23/19	629974	0	91872	0	324581	0	197190	33	8038460	0	363399	0	54758	0	8572119	0	4362869	0
08/24/19	629977	3	91874	2	324590	9	197193	3	8038460	0	363399	0	54970	212	8572119	0	4362869	0
08/25/19	629977	0	91874	0	324590	0	197193	0	8038468	8	363666	267	55076	106	8572121	2	4362869	0
08/26/19	629977	0	91874	0	324590	0	197193	0	8038468	0	363666	0	55076	0	8572121	0	4362869	0
08/27/19	629977	0	91874	0	324590	0	197193	0	8038468	0	363666	0	55228	152	8572121	0	4362869	0
08/28/19	629977	0	91874	0	324590	0	197193	0	8038468	0	363666	0	55228	0	8572121	0	4362869	0
08/29/19	629977	0	91874	0	324590	0	197193	0	8038468	0	363666	0	55337	109	8572121	0	4362869	0
08/30/19	629977	0	91874	0	324590	0	197193	0	8038468	0	363666	0	55337	0	8572121	0	4362869	0
08/31/19	629977	0	91874	0	324590	0	197193	0	8038468	0	363666	0	55568	231	8572121	0	4362869	0

A/B ALR:	0.1	C/D ALR:	0.3	E/F ALR:	1.4	G/H ALR:	0.9	Cell 3 ALR	1.2	Cell 4 ALR	0.9	Cell 5A ALR	12.5	N IMP Sec	39.57	S IMP Sec	0.71
Total A/B:	19	Total C/D:	83	Total E/F:	304	Total G/H:	114	Total Cell 3:	370	Total Cell 4:	267	Total Cell 5A:	3302	Total North:	277	Total South:	5

Note: 1.) Additional leachate was mistakenly pumped out of the North Impoundment on August 10th when the pump setting was changed to automatic. NYSDEC was notified of this exceedance on August 14, 2019.

Secondary Total: 4741

Hyland Facility Associates

Daily Leachate Tracking September 2019

Bay 1 (North Impoundment)

Date	Manual Reading from Impoundment (ft)	North Bay Leachate Level (gal)	Leachate Capacity to Overflow (gal)	Daily Change in Leachate Volume (gal)
08/31/19	5.2	46,369	504,892	-6,839
09/01/19	5.6	60,377	490,884	14,007
09/02/19	6.0	75,704	475,557	15,327
09/03/19	6.4	92,248	459,013	16,545
09/04/19	6.1	79,735	471,526	-12,513
09/05/19	5.7	64,085	487,176	-15,651
09/06/19	5.4	53,208	498,053	-10,877
09/07/19	5.2	46,369	504,892	-6,839
09/08/19	5.6	60,377	490,884	14,007
09/09/19	6.0	75,704	475,557	15,327
09/10/19	5.9	71,748	479,513	-3,955
09/11/19	5.6	60,377	490,884	-11,372
09/12/19	5.5	56,751	494,510	-3,626
09/13/19	6.6	100,939	450,322	44,188
09/14/19	6.5	96,558	454,703	-4,380
09/15/19	7.1	123,887	427,374	27,329
09/16/19	7.5	143,565	407,696	19,678
09/17/19	7.4	138,533	412,728	-5,032
09/18/19	7.1	123,887	427,374	-14,646
09/19/19	6.8	109,908	441,353	-13,979
09/20/19	6.5	96,558	454,703	-13,349
09/21/19	6.3	88,007	463,254	-8,551
09/22/19	6.7	105,388	445,873	17,381
09/23/19	7.0	119,156	432,105	13,768
09/24/19	6.9	114,497	436,764	-4,659
09/25/19	6.6	100,939	450,322	-13,558
09/26/19	6.3	88,007	463,254	-12,931
09/27/19	5.9	71,748	479,513	-16,259
09/28/19	5.8	67,875	483,386	-3,873
09/29/19	6.1	79,735	471,526	11,860
09/30/19	6.5	96,558	454,703	16,823

Bay 2 (South Impoundment)

Date	Manual Reading from Impoundment (ft)	South Bay Leachate Level (gal)	Leachate Capacity to Overflow (gal)	Daily Change in Leachate Volume (gal)
08/31/19	5.0	41,144	515,870	0
09/01/19	5.0	41,144	515,870	0
09/02/19	5.0	41,144	515,870	0
09/03/19	5.0	41,144	515,870	0
09/04/19	5.0	41,144	515,870	0
09/05/19	5.0	41,144	515,870	0
09/06/19	5.1	44,533	512,481	3,389
09/07/19	5.1	44,533	512,481	0
09/08/19	5.1	44,533	512,481	0
09/09/19	5.0	41,144	515,870	-3,389
09/10/19	5.0	41,144	515,870	0
09/11/19	5.1	44,533	512,481	3,389
09/12/19	5.3	51,511	505,503	6,978
09/13/19	5.4	55,101	501,913	3,590
09/14/19	5.5	58,757	498,257	3,657
09/15/19	5.5	58,757	498,257	0
09/16/19	5.5	58,757	498,257	0
09/17/19	5.5	58,757	498,257	0
09/18/19	5.5	58,757	498,257	0
09/19/19	5.5	58,757	498,257	0
09/20/19	5.5	58,757	498,257	0
09/21/19	5.5	58,757	498,257	0
09/22/19	5.5	58,757	498,257	0
09/23/19	5.5	58,757	498,257	0
09/24/19	5.5	58,757	498,257	0
09/25/19	5.5	58,757	498,257	0
09/26/19	5.5	58,757	498,257	0
09/27/19	5.5	58,757	498,257	0
09/28/19	5.5	58,757	498,257	0
09/29/19	5.5	58,757	498,257	0
09/30/19	5.5	58,757	498,257	0

Total Change in Leachate Volume (gal)	Disposed (gal)	Total Leachate Generation (gal)
-6,839	0	-6,839
14,007	0	14,007
15,327	0	15,327
16,545	49,572	66,117
-12,513	49,377	36,864
-15,651	49,584	33,933
-7,488	35,290	27,802
-6,839	0	-6,839
14,007	0	14,007
11,938	29,751	41,689
-3,955	43,606	39,651
-7,983	64,336	56,353
3,353	42,975	46,328
47,777	42,931	90,708
-724	0	-724
27,329	0	27,329
19,678	42,502	62,180
-5,032	49,388	44,356
-14,646	49,179	34,533
-13,979	49,395	35,416
-13,349	42,226	28,877
-8,551	0	-8,551
17,381	0	17,381
13,768	42,643	56,411
-4,659	49,889	45,230
-13,558	49,352	35,794
-12,931	49,842	36,911
-16,259	35,341	19,082
-3,873	0	-3,873
11,860	0	11,860
16,823	49,501	66,324

Total Leachate Collected **984,482**
 Secondary Leachate Collected 2,066
 Total Primary Collected 982,416
 Total Gallons Hauled 916,680

Date	Secondary Liquid Cell 1 A/B Meter Reading	Secondary Liquid Cell 1 A/B Daily Flow	Secondary Liquid Cell 1 C/D Meter Reading	Secondary Liquid Cell 1 C/D Daily Flow	Secondary Liquid Cell 2 E/F Meter Reading	Secondary Liquid Cell 2 E/F Daily Flow	Secondary Liquid Cell 2 G/H Meter Reading	Secondary Liquid Cell 2 G/H Daily Flow	Secondary Liquid Cell 3 Totalizer Reading gals	Secondary Liquid Cell 3 Totalizer Daily Flow gals	Secondary Liquid Cell 4 Totalizer Reading gals	Secondary Liquid Cell 4 Totalizer Daily Flow gals	Secondary Liquid Cell 5 A/B Totalizer Reading gals	Secondary Liquid Cell 5 A/B Totalizer Daily Flow gals	North Impound-ment Bay Totalizer Reading gals	North Impound-ment Bay Daily Flow gals	South Impound-ment Bay Totalizer Reading gals	South Impound-ment Bay Daily Flow gals
08/31/19	629977	0	91874	0	324590	0	197193	0	8038468	0	363666	0	55568	231	8572121	0	4362869	0
09/01/19	629977	0	91874	0	324598	8	197193	0	8038468	0	363666	0	55568	0	8572121	0	4362869	0
09/02/19	629977	0	91874	0	324598	0	197226	33	8038468	0	363666	0	55568	0	8572121	0	4362869	0
09/03/19	629977	0	91874	0	324598	0	197226	0	8038468	0	363666	0	55568	0	8572121	0	4362869	0
09/04/19	629977	0	91874	0	324598	0	197226	0	8038766	298	363666	0	55795	227	8572121	0	4362869	0
09/05/19	629977	0	91874	0	324598	0	197226	0	8038766	0	363666	0	55795	0	8572121	0	4362869	0
09/06/19	629977	0	91874	0	324598	0	197226	0	8038766	0	363666	0	55795	0	8572121	0	4362869	0
09/07/19	629977	0	91874	0	324598	0	197226	0	8038766	0	363666	0	55979	184	8572121	0	4362869	0
09/08/19	629978	1	91874	0	324599	1	197226	0	8038766	0	363666	0	55979	0	8572121	0	4362869	0
09/09/19	629978	0	91874	0	324599	0	197226	0	8038766	0	363666	0	55979	0	8572121	0	4362869	0
09/10/19	630039	61	91874	0	324599	0	197226	0	8038766	0	363666	0	55979	0	8572121	0	4362869	0
09/11/19	630039	0	91874	0	324599	0	197226	0	8038766	0	363666	0	56197	218	8572121	0	4362869	0
09/12/19	630039	0	91874	0	324599	0	197226	0	8038766	0	363666	0	56197	0	8572121	0	4362869	0
09/13/19	630039	0	91874	0	324599	0	197260	34	8038766	0	363666	0	56197	0	8572121	0	4362869	0
09/14/19	630040	1	91944	70	324608	9	197293	33	8038766	0	363938	272	56197	0	8572121	0	4362869	0
09/15/19	630040	0	91944	0	324608	0	197293	0	8038766	0	363938	0	56594	397	8572121	0	4362869	0
09/16/19	630040	0	91944	0	324608	0	197293	0	8038766	0	363938	0	56594	0	8572121	0	4362869	0
09/17/19	630040	0	91944	0	324608	0	197293	0	8038766	0	363938	0	56594	0	8572121	0	4362869	0
09/18/19	630040	0	91944	0	324608	0	197293	0	8038766	0	363938	0	56594	0	8572121	0	4362869	0
09/19/19	630040	0	91944	0	324608	0	197293	0	8038766	0	363938	0	56594	0	8572121	0	4362869	0
09/20/19	630040	0	91944	0	324608	0	197293	0	8038766	0	363938	0	56651	57	8572121	0	4362869	0
09/21/19	630041	1	91944	0	324617	9	197293	0	8038766	0	363938	0	56759	108	8572121	0	4362869	0
09/22/19	630041	0	91944	0	324617	0	197327	34	8038766	0	363938	0	56759	0	8572121	0	4362869	0
09/23/19	630041	0	91944	0	324617	0	197327	0	8038766	0	363938	0	56759	0	8572121	0	4362869	0
09/24/19	630041	0	91944	0	324617	0	197327	0	8038766	0	363938	0	56759	0	8572121	0	4362869	0
09/25/19	630041	0	91944	0	324617	0	197327	0	8038766	0	363938	0	56759	0	8572121	0	4362869	0
09/26/19	630041	0	91944	0	324617	0	197327	0	8038766	0	363938	0	56759	0	8572121	0	4362869	0
09/27/19	630041	0	91944	0	324617	0	197327	0	8038766	0	363938	0	56759	0	8572121	0	4362869	0
09/28/19	630041	0	91944	0	324621	4	197327	0	8038772	6	363938	0	56759	0	8572121	0	4362869	0
09/29/19	630041	0	91944	0	324621	0	197327	0	8038772	0	363938	0	56759	0	8572121	0	4362869	0
09/30/19	630041	0	91944	0	324621	0	197327	0	8038772	0	363938	0	56759	0	8572121	0	4362869	0

A/B ALR:	0.2	C/D ALR:	0.3	E/F ALR:	0.1	G/H ALR:	1.0	Cell 3 ALR	1.0	Cell 4 ALR	1.0	Cell 5 A/B ALR	3.1	N IMP Sec	0.00	S IMP Sec	0.00
Total A/B:	64	Total C/D:	70	Total E/F:	31	Total G/H:	134	Total Cell 3:	304	Total Cell 4:	272	Total Cell 5 A/B:	1191	Total North:	0	Total South:	0

Secondary Total: 2066

Hyland Facility Associates Daily Leachate Tracking October 2019
Bay 1 (North Impoundment)

Date	Manual Reading from Impoundment (ft)	North Bay Leachate Level (gal)	Leachate Capacity to Overflow (gal)	Daily Change in Leachate Volume (gal)
09/30/19	6.5	96,558	454,703	16,823
10/01/19	6.2	83,836	467,425	-12,722
10/02/19	5.8	67,875	483,386	-15,961
10/03/19	5.5	56,751	494,510	-11,124
10/04/19	5.2	46,369	504,892	-10,382
10/05/19	5.0	39,861	511,400	-6,509
10/06/19	5.4	53,208	498,053	13,347
10/07/19	6.1	79,735	471,526	26,527
10/08/19	7.0	119,156	432,105	39,421
10/09/19	7.4	138,533	412,728	19,377
10/10/19	7.3	133,576	417,685	-4,957
10/11/19	7.1	123,887	427,374	-9,688
10/12/19	6.9	114,497	436,764	-9,390
10/13/19	7.2	128,694	422,567	14,197
10/14/19	7.6	148,673	402,588	19,979
10/15/19	7.2	128,694	422,567	-19,979
10/16/19	7.0	119,156	432,105	-9,538
10/17/19	7.0	119,156	432,105	0
10/18/19	7.0	119,156	432,105	0
10/19/19	6.9	114,497	436,764	-4,659
10/20/19	7.3	133,576	417,685	19,079
10/21/19	7.7	153,856	397,405	20,280
10/22/19	7.7	153,856	397,405	0
10/23/19	7.9	164,447	386,814	10,591
10/24/19	7.7	153,856	397,405	-10,591
10/25/19	7.4	138,533	412,728	-15,323
10/26/19	7.3	133,576	417,685	-4,957
10/27/19	7.6	148,673	402,588	15,097
10/28/19	8.2	180,909	370,352	32,236
10/29/19	7.9	164,447	386,814	-16,462
10/30/19	7.5	143,565	407,696	-20,882
10/31/19	7.4	138,533	412,728	-5,032

Bay 2 (South Impoundment)

Date	Manual Reading from Impoundment (ft)	South Bay Leachate Level (gal)	Leachate Capacity to Overflow (gal)	Daily Change in Leachate Volume (gal)
09/30/19	5.5	58,757	498,257	0
10/01/19	5.6	62,481	494,533	3,724
10/02/19	5.6	62,481	494,533	0
10/03/19	5.6	62,481	494,533	0
10/04/19	5.6	62,481	494,533	0
10/05/19	5.6	62,481	494,533	0
10/06/19	5.7	66,271	490,743	3,791
10/07/19	5.8	70,129	486,885	3,857
10/08/19	5.9	74,053	482,961	3,924
10/09/19	5.9	74,053	482,961	0
10/10/19	5.9	74,053	482,961	0
10/11/19	5.9	74,053	482,961	0
10/12/19	5.9	74,053	482,961	0
10/13/19	5.9	74,053	482,961	0
10/14/19	5.9	74,053	482,961	0
10/15/19	5.9	74,053	482,961	0
10/16/19	5.9	74,053	482,961	0
10/17/19	6.0	78,045	478,969	3,991
10/18/19	6.1	82,105	474,909	4,061
10/19/19	6.1	82,105	474,909	0
10/20/19	6.1	82,105	474,909	0
10/21/19	6.1	82,105	474,909	0
10/22/19	6.1	82,105	474,909	0
10/23/19	6.2	86,237	470,777	4,132
10/24/19	6.2	86,237	470,777	0
10/25/19	6.3	90,440	466,574	4,203
10/26/19	6.3	90,440	466,574	0
10/27/19	6.3	90,440	466,574	0
10/28/19	6.4	94,714	462,300	4,274
10/29/19	6.4	94,714	462,300	0
10/30/19	6.4	94,714	462,300	0
10/31/19	6.4	94,714	462,300	0

Total Change in Leachate Volume (gal)	Disposed (gal)	Total Leachate Generation (gal)
16,823	49,501	66,324
-8,998	49,598	40,600
-15,961	47,259	31,298
-11,124	49,546	38,422
-10,382	42,877	32,495
-6,509	0	-6,509
17,138	0	17,138
30,385	49,623	80,008
43,345	49,581	92,926
19,377	42,210	61,587
-4,957	49,490	44,533
-9,688	42,083	32,395
-9,390	0	-9,390
14,197	0	14,197
19,979	56,445	76,424
-19,979	42,504	22,525
-9,538	42,589	33,051
3,991	49,864	53,855
4,061	42,399	46,460
-4,659	0	-4,659
19,079	0	19,079
20,280	28,297	48,577
0	42,453	42,453
14,723	49,313	64,036
-10,591	56,589	45,998
-11,120	42,447	31,327
-4,957	7,035	2,078
15,097	0	15,097
36,510	56,481	92,991
-16,462	63,345	46,883
-20,882	42,278	21,396
-5,032	56,466	51,434

Total Leachate Collected **1,178,703**
 Secondary Leachate Collected 2,237
 Total Primary Collected 1,176,466
 Total Gallons Hauled 1,100,772

Date	Secondary Liquid Cell 1 A/B Meter Reading	Secondary Liquid Cell 1 A/B Daily Flow	Secondary Liquid Cell 1 C/D Meter Reading	Secondary Liquid Cell 1 C/D Daily Flow	Secondary Liquid Cell 2 E/F Meter Reading	Secondary Liquid Cell 2 E/F Daily Flow	Secondary Liquid Cell 2 G/H Meter Reading	Secondary Liquid Cell 2 G/H Daily Flow	Secondary Liquid Cell 3 Totalize Reading gals	Secondary Liquid Cell 3 Daily Flow gals	Secondary Liquid Cell 4 Totalizer Reading gals	Secondary Liquid Cell 4 Daily Flow gals	Secondary Liquid Cell 5 A/B Totalizer Reading gals	Secondary Liquid Cell 5 A/B Daily Flow gals	North Impound-ment Bay Totalizer Reading gals	North Impound-ment Bay Daily Flow gals	South Impound-ment Bay Totalizer Reading gals	South Impound-ment Bay Daily Flow gals
09/30/19	630041	0	91944	0	324621	0	197327	0	8038772	0	363938	0	56759	0	8572121	0	4362869	0
10/01/19	630041	0	91944	0	324621	0	197327	0	8038772	0	363938	0	56759	0	8572121	0	4362869	0
10/02/19	630041	0	91944	0	324621	0	197327	0	8039062	290	363938	0	56759	0	8572121	0	4362869	0
10/03/19	630041	0	91944	0	324621	0	197360	33	8039062	0	363938	0	56759	0	8572121	0	4362869	0
10/04/19	630041	0	91944	0	324630	9	197360	0	8039062	0	363938	0	56759	0	8572121	0	4362869	0
10/05/19	630041	0	91944	0	324630	0	197360	0	8039062	0	363938	0	56759	0	8572121	0	4362869	0
10/06/19	630041	0	91944	0	324630	0	197360	0	8039062	0	364206	268	56759	0	8572121	0	4362869	0
10/07/19	630041	0	91944	0	324630	0	197360	0	8039062	0	364206	0	56759	0	8572121	0	4362869	0
10/08/19	630041	0	91944	0	324630	0	197360	0	8039062	0	364206	0	56759	0	8572121	0	4362869	0
10/09/19	630041	0	91944	0	324630	0	197393	33	8039062	0	364206	0	56759	0	8572121	0	4362869	0
10/10/19	630041	0	91944	0	324630	0	197393	0	8039062	0	364206	0	56759	0	8572121	0	4362869	0
10/11/19	630041	0	91944	0	324630	0	197393	0	8039062	0	364206	0	56759	0	8572121	0	4362869	0
10/12/19	630041	0	91944	0	324630	0	197393	0	8039062	0	364206	0	56759	0	8572121	0	4362869	0
10/13/19	630041	0	91944	0	324630	0	197393	0	8039062	0	364206	0	56759	0	8572121	0	4362869	0
10/14/19	630041	0	91944	0	324630	0	197393	0	8039062	0	364206	0	56759	0	8572121	0	4362869	0
10/15/19	630041	0	91944	0	324630	0	197393	0	8039062	0	364206	0	56759	0	8572121	0	4362869	0
10/16/19	630041	0	91944	0	324630	0	197393	0	8039062	0	364206	0	56759	0	8572121	0	4362869	0
10/17/19	630041	0	91944	0	324630	0	197393	0	8039062	0	364206	0	57459	700	8572121	0	4362869	0
10/18/19	630041	0	91944	0	324792	162	197393	0	8039062	0	364206	0	57459	0	8572121	0	4362869	0
10/19/19	630041	0	91944	0	324792	0	197426	33	8039062	0	364206	0	57459	0	8572121	0	4362869	0
10/20/19	630041	0	92012	68	324792	0	197426	0	8039062	0	364206	0	57459	0	8572121	0	4362869	0
10/21/19	630041	0	92012	0	324792	0	197426	0	8039062	0	364206	0	57459	0	8572121	0	4362869	0
10/22/19	630041	0	92012	0	324792	0	197426	0	8039062	0	364515	309	57459	0	8572121	0	4362869	0
10/23/19	630041	0	92012	0	324792	0	197426	0	8039062	0	364515	0	57459	0	8572121	0	4362869	0
10/24/19	630041	0	92012	0	324792	0	197426	0	8039062	0	364515	0	57459	0	8572121	0	4362869	0
10/25/19	630042	1	92012	0	324801	9	197426	0	8039062	0	364515	0	57459	0	8572121	0	4362869	0
10/26/19	630042	0	92012	0	324801	0	197426	0	8039062	0	364515	0	57459	0	8572121	0	4362869	0
10/27/19	630042	0	92012	0	324801	0	197426	0	8039351	289	364515	0	57459	0	8572121	0	4362869	0
10/28/19	630042	0	92012	0	324801	0	197459	33	8039351	0	364515	0	57459	0	8572121	0	4362869	0
10/29/19	630042	0	92012	0	324801	0	197459	0	8039351	0	364515	0	57459	0	8572121	0	4362869	0
10/30/19	630042	0	92012	0	324801	0	197459	0	8039351	0	364515	0	57459	0	8572121	0	4362869	0
10/31/19	630042	0	92012	0	324801	0	197459	0	8039351	0	364515	0	57459	0	8572121	0	4362869	0

A/B ALR: 0.0 C/D ALR: 0.3 E/F ALR: 0.8 G/H ALR: 1.0 Cell 3 ALR 1.9 Cell 4 ALR 2.0 Cell 5 A/B ALR 1.7 N IMP Sec 0.00 S IMP Sec 0.00
Total A/B: 1 Total C/D: 68 Total E/F: 180 Total G/H: 132 Total Cell 3: 579 Total Cell 4: 577 Total Cell 5 A/B: 700 Total North: 0 Total South: 0

Secondary Total: 2237

Hyland Facility Associates

Daily Leachate Tracking November 2019

Bay 1 (North Impoundment)

Date	Manual Reading from Impoundment (ft)	North Bay Leachate Level (gal)	Leachate Capacity to Overflow (gal)	Daily Change in Leachate Volume (gal)
10/31/19	7.4	138,533	412,728	-5,032
11/01/19	7.7	153,856	397,405	15,323
11/02/19	8.0	169,856	381,405	16,000
11/03/19	8.6	203,979	347,282	34,123
11/04/19	9.1	234,627	316,634	30,648
11/05/19	8.9	222,125	329,136	-12,502
11/06/19	8.5	198,091	353,170	-24,034
11/07/19	8.3	186,556	364,705	-11,535
11/08/19	8.0	169,856	381,405	-16,700
11/09/19	7.7	153,856	397,405	-16,000
11/10/19	8.1	175,342	375,919	21,487
11/11/19	8.4	192,283	358,978	16,941
11/12/19	8.1	175,342	375,919	-16,941
11/13/19	7.6	148,673	402,588	-26,669
11/14/19	7.3	133,576	417,685	-15,097
11/15/19	6.9	114,497	436,764	-19,079
11/16/19	6.5	96,558	454,703	-17,939
11/17/19	6.8	109,908	441,353	13,349
11/18/19	7.2	128,694	422,567	18,786
11/19/19	6.5	96,558	454,703	-32,135
11/20/19	5.8	67,875	483,386	-28,683
11/21/19	5.7	64,085	487,176	-3,791
11/22/19	5.4	53,208	498,053	-10,877
11/23/19	5.4	53,208	498,053	0
11/24/19	5.4	53,208	498,053	0
11/25/19	5.4	53,208	498,053	0
11/26/19	5.4	53,208	498,053	0
11/27/19	5.3	49,747	501,514	-3,461
11/28/19	5.4	53,208	498,053	3,461
11/29/19	5.4	53,208	498,053	0
11/30/19	5.4	53,208	498,053	0

Bay 2 (South Impoundment)

Date	Manual Reading from Impoundment (ft)	South Bay Leachate Level (gal)	Leachate Capacity to Overflow (gal)	Daily Change in Leachate Volume (gal)
10/31/19	6.4	94,714	462,300	0
11/01/19	6.7	107,963	449,051	13,249
11/02/19	6.7	107,963	449,051	0
11/03/19	6.7	107,963	449,051	0
11/04/19	6.7	107,963	449,051	0
11/05/19	6.7	107,963	449,051	0
11/06/19	6.8	112,521	444,492	4,559
11/07/19	6.8	112,521	444,492	0
11/08/19	6.8	112,521	444,492	0
11/09/19	6.8	112,521	444,492	0
11/10/19	6.8	112,521	444,492	0
11/11/19	6.8	112,521	444,492	0
11/12/19	6.9	117,151	439,863	4,630
11/13/19	6.9	117,151	439,863	0
11/14/19	6.9	117,151	439,863	0
11/15/19	7.0	121,852	435,162	4,701
11/16/19	7.0	121,852	435,162	0
11/17/19	7.0	121,852	435,162	0
11/18/19	7.0	121,852	435,162	0
11/19/19	7.0	121,852	435,162	0
11/20/19	7.1	126,627	430,387	4,774
11/21/19	7.1	126,627	430,387	0
11/22/19	6.9	117,151	439,863	-9,475
11/23/19	6.7	107,963	449,051	-9,189
11/24/19	7.1	126,627	430,387	18,664
11/25/19	7.1	126,627	430,387	0
11/26/19	7.1	126,627	430,387	0
11/27/19	6.9	117,151	439,863	-9,475
11/28/19	6.4	94,714	462,300	-22,438
11/29/19	6.8	112,521	444,492	17,808
11/30/19	6.6	103,475	453,539	-9,046

Total Change in Leachate Volume (gal)	Disposed (gal)	Total Leachate Generation (gal)
-5,032	56466	51,434
28,572	49,243	77,815
16,000	0	16,000
34,123	0	34,123
30,648	49,441	80,089
-12,502	63,567	51,065
-19,476	49,287	29,811
-11,535	56,903	45,368
-16,700	49,582	32,882
-16,000	0	-16,000
21,487	0	21,487
16,941	56,618	73,559
-12,311	63,754	51,443
-26,669	56,045	29,376
-15,097	56,778	41,681
-14,378	56,609	42,231
-17,939	0	-17,939
13,349	0	13,349
18,786	78,052	96,838
-32,135	63,944	31,809
-23,909	42,288	18,379
-3,791	63,726	59,935
-20,352	49,869	29,517
-9,189	0	-9,189
18,664	0	18,664
0	49,190	49,190
0	42,133	42,133
-12,936	56,134	43,198
-18,977	0	-18,977
17,808	42,327	60,135
-9,046	0	-9,046

Total Leachate Collected 1,018,927
 Secondary Leachate Collected 2,602
 Total Primary Collected 1,016,325
 Total Gallons Hauled 1,095,490

Date	Secondary Liquid Cell 1 A/B Meter Reading	Secondary Liquid Cell 1 A/B Daily Flow	Secondary Liquid Cell 1 C/D Meter Reading	Secondary Liquid Cell 1 C/D Daily Flow	Secondary Liquid Cell 2 E/F Meter Reading	Secondary Liquid Cell 2 E/F Daily Flow	Secondary Liquid Cell 2 G/H Meter Reading	Secondary Liquid Cell 2 G/H Daily Flow	Secondary Liquid Cell 3 Totalize Reading gals	Secondary Liquid Cell 3 Daily Flow gals	Secondary Liquid Cell 4 Totalizer Reading gals	Secondary Liquid Cell 4 Daily Flow gals	Secondary Liquid Cell 5 A/B Totalizer Reading gals	Secondary Liquid Cell 5 A/B Daily Flow gals	North Impoundment Bay Totalizer Reading gals	North Impoundment Bay Daily Flow gals	South Impoundment Bay Totalizer Reading gals	South Impoundment Bay Daily Flow gals
10/31/19	630042	0	92012	0	324801	0	197459	0	8039351	0	364515	0	57459	0	8572121	0	4362869	0
11/01/19	630042	0	92012	0	324801	0	197492	33	8039351	0	364515	0	58191	732	8572121	0	4362869	0
11/02/19	630042	0	92012	0	324801	0	197492	0	8039351	0	364515	0	58191	0	8572121	0	4362869	0
11/03/19	630042	0	92012	0	324801	0	197492	0	8039351	0	364515	0	58191	0	8572121	0	4362869	0
11/04/19	630042	0	92012	0	324801	0	197492	0	8039351	0	364515	0	58191	0	8572121	0	4362869	0
11/05/19	630042	0	92012	0	324801	0	197492	0	8039351	0	364515	0	58191	0	8572121	0	4362869	0
11/06/19	630042	0	92012	0	324801	0	197525	33	8039351	0	364515	0	58191	0	8572121	0	4362869	0
11/07/19	630042	0	92012	0	324801	0	197525	0	8039351	0	364515	0	58191	0	8572121	0	4362869	0
11/08/19	630042	0	92012	0	324801	0	197525	0	8039351	0	364515	0	58191	0	8572121	0	4362869	0
11/09/19	630042	0	92012	0	324809	8	197526	1	8039351	0	364515	0	58191	0	8572121	0	4362869	0
11/10/19	630042	0	92012	0	324809	0	197526	0	8039351	0	364515	0	58191	0	8572121	0	4362869	0
11/11/19	630042	0	92012	0	324809	0	197526	0	8039351	0	364515	0	58191	0	8572121	0	4362869	0
11/12/19	630042	0	92012	0	324809	0	197526	0	8039636	285	364515	0	58191	0	8572121	0	4362869	0
11/13/19	630042	0	92012	0	324809	0	197558	32	8039636	0	364515	0	58191	0	8572121	0	4362869	0
11/14/19	630042	0	92012	0	324809	0	197558	0	8039636	0	364515	0	58191	0	8572121	0	4362869	0
11/15/19	630042	0	92012	0	324809	0	197558	0	8039636	0	364515	0	58191	0	8572121	0	4362869	0
11/16/19	630042	0	92012	0	324809	0	197558	0	8039641	5	364515	0	58193	2	8572121	0	4362869	0
11/17/19	630042	0	92012	0	324809	0	197558	0	8039641	0	364515	0	58193	0	8572121	0	4362869	0
11/18/19	630042	0	92012	0	324809	0	197558	0	8039641	0	364515	0	58193	0	8572121	0	4362869	0
11/19/19	630042	0	92012	0	324809	0	197558	0	8039641	0	364787	272	58915	722	8572121	0	4362869	0
11/20/19	630042	0	92012	0	324809	0	197589	31	8039641	0	364787	0	58915	0	8572121	0	4362869	0
11/21/19	630042	0	92012	0	324809	0	197589	0	8039641	0	364787	0	58915	0	8572121	0	4362869	0
11/22/19	630042	0	92012	0	324809	0	197589	0	8039641	0	364787	0	58915	0	8572121	0	4362869	0
11/23/19	630044	2	92014	2	324823	14	197596	7	8039646	5	364790	3	58920	5	8572121	0	4362869	0
11/24/19	630044	0	92014	0	324823	0	197596	0	8039646	0	364790	0	58920	0	8572121	0	4362869	0
11/25/19	630044	0	92014	0	324823	0	197596	0	8039646	0	364790	0	58920	0	8572121	0	4362869	0
11/26/19	630044	0	92014	0	324823	0	197596	0	8039646	0	364790	0	58920	0	8572121	0	4362869	0
11/27/19	630044	0	92014	0	324823	0	197596	0	8039646	0	364790	0	58920	0	8572121	0	4362869	0
11/28/19	630044	0	92014	0	324910	87	197627	31	8039919	273	364790	0	58920	0	8572121	0	4362869	0
11/29/19	630044	0	92014	0	324910	0	197627	0	8039919	0	364790	0	58920	0	8572121	0	4362869	0
11/30/19	630046	2	92015	1	324918	8	197628	1	8039923	4	364791	1	58920	0	8572121	0	4362869	0

A/B ALR:	0.0	C/D ALR:	0.0	E/F ALR:	0.6	G/H ALR:	1.3	Cell 3 ALR	2.0	Cell 4 ALR	1.0	Cell 5 A/B ALR	3.7	N IMP Sec	0.00	S IMP Sec	0.00
<i>Total A/B:</i>	4	<i>Total C/D:</i>	3	<i>Total E/F:</i>	117	<i>Total G/H:</i>	169	<i>Total Cell 3:</i>	572	<i>Total Cell 4:</i>	276	<i>Total Cell 5 A/B:</i>	1461	<i>Total North:</i>	0	<i>Total South:</i>	0

Secondary Total: 2602

Hyland Facility Associates

Daily Leachate Tracking December 2019

Bay 1 (North Impoundment)

Date	Reading from Impoundment (ft)	North Bay Leachate Level (gal)	Leachate Capacity to Overflow (gal)	Daily Change in Leachate Volume (gal)
11/30/19	5.4	53,208	498,053	0
12/01/19	5.4	53,208	498,053	0
12/02/19	5.4	53,208	498,053	0
12/03/19	5.5	56,751	494,510	3,543
12/04/19	5.5	56,751	494,510	0
12/05/19	5.5	56,751	494,510	0
12/06/19	5.5	56,751	494,510	0
12/07/19	5.5	56,751	494,510	0
12/08/19	5.5	56,751	494,510	0
12/09/19	5.5	56,751	494,510	0
12/10/19	5.7	64,085	487,176	7,334
12/11/19	5.7	64,085	487,176	0
12/12/19	5.7	64,085	487,176	0
12/13/19	5.7	64,085	487,176	0
12/14/19	5.7	64,085	487,176	0
12/15/19	5.8	67,875	483,386	3,791
12/16/19	5.8	67,875	483,386	0
12/17/19	5.8	67,875	483,386	0
12/18/19	5.9	71,748	479,513	3,873
12/19/19	5.9	71,748	479,513	0
12/20/19	5.9	71,748	479,513	0
12/21/19	5.9	71,748	479,513	0
12/22/19	5.9	71,748	479,513	0
12/23/19	5.9	71,748	479,513	0
12/24/19	5.9	71,748	479,513	0
12/25/19	6.0	75,704	475,557	3,955
12/26/19	6.0	75,704	475,557	0
12/27/19	6.0	75,704	475,557	0
12/28/19	6.0	75,704	475,557	0
12/29/19	6.0	75,704	475,557	0
12/30/19	6.1	79,735	471,526	4,032
12/31/19	6.1	79,735	471,526	0

Bay 2 (South Impoundment)

Date	Reading from Impoundment (ft)	South Bay Leachate Level (gal)	Leachate Capacity to Overflow (gal)	Daily Change in Leachate Volume (gal)
11/30/19	6.6	103,475	453,539	-9,046
12/01/19	6.9	117,151	439,863	13,676
12/02/19	7.3	136,403	420,611	19,252
12/03/19	7.3	136,403	420,611	0
12/04/19	6.9	117,151	439,863	-19,252
12/05/19	6.7	107,963	449,051	-9,189
12/06/19	6.4	94,714	462,300	-13,249
12/07/19	6.0	78,045	478,969	-16,669
12/08/19	6.3	90,440	466,574	12,395
12/09/19	6.7	107,963	449,051	17,523
12/10/19	6.6	103,475	453,539	-4,488
12/11/19	6.6	103,475	453,539	0
12/12/19	6.3	90,440	466,574	-13,036
12/13/19	6.2	86,237	470,777	-4,203
12/14/19	6.0	78,045	478,969	-8,192
12/15/19	6.5	99,059	457,955	21,014
12/16/19	7.0	121,852	435,162	22,793
12/17/19	6.8	112,521	444,492	-9,331
12/18/19	6.6	103,475	453,539	-9,046
12/19/19	6.4	94,714	462,300	-8,762
12/20/19	6.1	82,105	474,909	-12,609
12/21/19	5.8	70,129	486,885	-11,976
12/22/19	6.3	90,440	466,574	20,311
12/23/19	6.7	107,963	449,051	17,523
12/24/19	6.3	90,440	466,574	-17,523
12/25/19	6.0	78,045	478,969	-12,395
12/26/19	6.4	94,714	462,300	16,669
12/27/19	6.1	82,105	474,909	-12,609
12/28/19	5.9	74,053	482,961	-8,052
12/29/19	6.4	94,714	462,300	20,660
12/30/19	7.0	121,852	435,162	27,139
12/31/19	6.7	107,963	449,051	-13,890

Total Change in Leachate Volume (gal)	Disposed (gal)	Total Leachate Generation (gal)
-9,046	0	-9,046
13,676	0	13,676
19,252	28,188	47,440
3,543	56,298	59,841
-19,252	48,923	29,671
-9,189	42,099	32,910
-13,249	49,322	36,073
-16,669	14,166	-2,503
12,395	0	12,395
17,523	49,205	66,728
2,846	42,332	45,178
0	56,043	56,043
-13,036	42,220	29,184
-4,203	49,530	45,327
-8,192	0	-8,192
24,805	0	24,805
22,793	49,341	72,134
-9,331	42,111	32,780
-5,173	42,184	37,011
-8,762	49,269	40,507
-12,609	49,079	36,470
-11,976	0	-11,976
20,311	0	20,311
17,523	56,602	74,125
-17,523	49,622	32,099
-8,440	0	-8,440
16,669	57,459	74,128
-12,609	42,141	29,532
-8,052	0	-8,052
20,660	0	20,660
31,170	56,458	87,628
-13,890	49,187	35,297

Total Leachate Collected **1,052,794**
 Secondary Leachate Collected 6,182
 Total Primary Collected 1,046,612
 Total Gallons Hauled 1,021,779

Date	Secondary Liquid Cell 1 A/B Meter Reading	Secondary Liquid Cell 1 A/B Daily Flow	Secondary Liquid Cell 1 C/D Meter Reading	Secondary Liquid Cell 1 C/D Daily Flow	Secondary Liquid Cell 2 E/F Meter Reading	Secondary Liquid Cell 2 E/F Daily Flow	Secondary Liquid Cell 2 G/H Meter Reading	Secondary Liquid Cell 2 G/H Daily Flow	Secondary Liquid Cell 3 Totalize Reading gals	Secondary Liquid Cell 3 Daily Flow gals	Secondary Liquid Cell 4 Totalizer Reading gals	Secondary Liquid Cell 4 Daily Flow gals	Secondary Liquid Cell 5 A/B Totalizer Reading gals	Secondary Liquid Cell 5 A/B Daily Flow gals	North Impound-ment Bay Totalizer Reading gals	North Impound-ment Bay Daily Flow gals	South Impound-ment Bay Totalizer Reading gals	South Impound-ment Bay Daily Flow gals
11/30/19	630046	2	92015	1	324918	8	197628	1	8039923	4	364791	1	58920	0	8572121	0	4362869	0
12/01/19	630046	0	92085	70	324918	0	197628	0	8039923	0	364791	0	58920	0	8572121	0	4362869	0
12/02/19	630046	0	92085	0	324918	0	197628	0	8039923	0	364791	0	59657	737	8572121	0	4362869	0
12/03/19	630046	0	92085	0	324918	0	197628	0	8039923	0	364791	0	59657	0	8572121	0	4362869	0
12/04/19	630046	0	92085	0	324918	0	197628	0	8039923	0	364791	0	59657	0	8572121	0	4362869	0
12/05/19	630107	61	92085	0	324918	0	197660	32	8039923	0	364791	0	59657	0	8572121	0	4362869	0
12/06/19	630109	2	92087	2	324918	0	197663	3	8039927	4	364796	5	59662	5	8572121	0	4362869	0
12/07/19	630109	0	92087	0	324918	0	197694	31	8039927	0	364796	0	59662	0	8572121	0	4362869	0
12/08/19	630109	0	92087	0	324918	0	197694	0	8039927	0	364796	0	59662	0	8572121	0	4362869	0
12/09/19	630109	0	92087	0	324918	0	197694	0	8039927	0	364796	0	59662	0	8572121	0	4362869	0
12/10/19	630114	5	92101	14	324939	21	197694	0	8040008	81	364831	35	60083	421	8572121	0	4362869	0
12/11/19	630114	0	92101	0	324939	0	197726	32	8040008	0	364831	0	60725	642	8572124	3	4362881	12
12/12/19	630114	0	92101	0	324939	0	197726	0	8040008	0	364831	0	60725	0	8572124	0	4362881	0
12/13/19	630116	2	92102	1	324947	8	197727	1	8040011	3	364831	0	60725	0	8572124	0	4362881	0
12/14/19	630116	0	92102	0	324947	0	197727	0	8040011	0	365132	301	60725	0	8572124	0	4362881	0
12/15/19	630116	0	92102	0	324947	0	197727	0	8040291	280	365132	0	60725	0	8572124	0	4362881	0
12/16/19	630116	0	92102	0	324947	0	197758	31	8040291	0	365132	0	61508	783	8572124	0	4362881	0
12/17/19	630116	0	92102	0	324947	0	197758	0	8040291	0	365132	0	61508	0	8572124	0	4362881	0
12/18/19	630116	0	92102	0	324947	0	197758	0	8040291	0	365132	0	61508	0	8572124	0	4362881	0
12/19/19	630116	0	92102	0	324947	0	197786	28	8040291	0	365132	0	61508	0	8572124	0	4362881	0
12/20/19	630118	2	92103	1	324956	9	197787	1	8040298	7	365132	0	61508	0	8572124	0	4362881	0
12/21/19	630118	0	92103	0	324956	0	197787	0	8040298	0	365132	0	61508	0	8572124	0	4362881	0
12/22/19	630118	0	92103	0	324956	0	197787	0	8040298	0	365132	0	62152	644	8572124	0	4362881	0
12/23/19	630118	0	92103	0	324956	0	197787	0	8040298	0	365132	0	62152	0	8572124	0	4362881	0
12/24/19	630118	0	92103	0	324956	0	197787	0	8040298	0	365133	1	62152	0	8572124	0	4362881	0
12/25/19	630118	0	92103	0	324956	0	197787	0	8040593	295	365132	-1	62748	596	8572124	0	4362881	0
12/26/19	630118	0	92103	0	324956	0	197820	33	8040593	0	365132	0	62748	0	8572124	0	4362881	0
12/27/19	630119	1	92104	1	324965	9	197820	0	8040595	2	365134	2	62748	0	8572124	0	4362881	0
12/28/19	630119	0	92104	0	324965	0	197820	0	8040595	0	365134	0	62748	0	8572124	0	4362881	0
12/29/19	630119	0	92104	0	324965	0	197820	0	8040595	0	365134	0	63344	596	8572124	0	4362881	0
12/30/19	630119	0	92104	0	324965	0	197820	0	8040595	0	365424	290	63344	0	8572124	0	4362881	0
12/31/19	630119	0	92104	0	324965	0	197857	37	8040595	0	365424	0	63344	0	8572124	0	4362881	0

A/B ALR:	0.2	C/D ALR:	0.3	E/F ALR:	0.2	G/H ALR:	1.7	Cell 3 ALR	2.2	Cell 4 ALR	2.1	Cell 5 A/B ALR	11.0	N IMP Sec	0.10	S IMP Sec	0.39
Total A/B:	73.0	Total C/D:	89.0	Total E/F:	47.0	Total G/H:	229.0	Total Cell 3:	672.0	Total Cell 4:	633.0	Total Cell 5 A/B:	4424	Total North:	3	Total South:	12

Secondary Total: 6182

sRpDstGallons.rpt

Hyland Facility Associates
Destination Report

Destination: All

Transactions from 10/01/2019 through 10/31/2019
 Outbound Tickets Only
 Third Party and Intercompany Customers
 Recycle and Disposal Material
 Full Details

Ticket	Date	Truck	Trailer	In / Out	Bill Units	Cubic Yards	Tons
BWTP - OB / OUTBOUND / BELMONT							
301363	10/1/2019	ME102		O	7,178 GAL	0.00	7,178.00
301505	10/3/2019	ME102		O	7,183 GAL	0.00	7,183.00
301627	10/7/2019	ME102		O	7,181 GAL	0.00	7,181.00
301749	10/8/2019	ME102		O	7,174 GAL	0.00	7,174.00
301887	10/10/2019	ME102		O	7,150 GAL	0.00	7,150.00
301971	10/14/2019	ME102		O	7,159 GAL	0.00	7,159.00
302084	10/15/2019	ME102		O	7,157 GAL	0.00	7,157.00
302202	10/17/2019	ME102		O	7,140 GAL	0.00	7,140.00
302302	10/21/2019	ME102		O	7,188 GAL	0.00	7,188.00
302436	10/23/2019	ME102		O	7,142 GAL	0.00	7,142.00
302561	10/24/2019	ME102		O	7,107 GAL	0.00	7,107.00
302645	10/28/2019	ME102		O	7,174 GAL	0.00	7,174.00
302766	10/29/2019	ME015		O	7,183 GAL	0.00	7,183.00
302888	10/31/2019	ME015		O	7,188 GAL	0.00	7,188.00
					0.00	0.00	100,304.00

BWTP - OB / OUTBOUND / BELMONT

14 tickets and 14 transactions

J - JAMESTOWN W W T P

301352	10/1/2019	MT14	O	7,159 GAL	0.00	0.00	7,159.00
301440	10/2/2019	MT14	O	7,246 GAL	0.00	0.00	7,246.00
301496	10/3/2019	MT14	O	7,059 GAL	0.00	0.00	7,059.00
301564	10/4/2019	MT14	O	6,987 GAL	0.00	0.00	6,987.00
301666	10/7/2019	MT14	O	7,095 GAL	0.00	0.00	7,095.00
301739	10/8/2019	MT14	O	7,049 GAL	0.00	0.00	7,049.00
301812	10/9/2019	MT14	O	7,056 GAL	0.00	0.00	7,056.00
301875	10/10/2019	MT14	O	7,025 GAL	0.00	0.00	7,025.00
301938	10/11/2019	M14	O	6,996 GAL	0.00	0.00	6,996.00

J - JAMESTOWN W W T P

302102	10/16/2019	MT14	O	7,051 GAL	0.00	0.00	7,051.00
302129	10/16/2019	MT14	O	7,042 GAL	0.00	0.00	7,042.00
302143	10/16/2019	MT14	O	7,123 GAL	0.00	0.00	7,123.00
302168	10/17/2019	MT14	O	7,056 GAL	0.00	0.00	7,056.00
302233	10/18/2019	MT14	O	7,030 GAL	0.00	0.00	7,030.00
302408	10/22/2019	MT14	O	7,018 GAL	0.00	0.00	7,018.00
302481	10/23/2019	MT14	O	7,044 GAL	0.00	0.00	7,044.00
302554	10/24/2019	MT32	O	7,468 GAL	0.00	0.00	7,468.00
302595	10/25/2019	MT32	O	7,471 GAL	0.00	0.00	7,471.00
302628	10/26/2019	MT14	O	7,035 GAL	0.00	0.00	7,035.00
302665	10/28/2019	MT14	O	7,099 GAL	0.00	0.00	7,099.00
302684	10/28/2019	MT14	O	7,071 GAL	0.00	0.00	7,071.00
302727	10/29/2019	MT14	O	7,056 GAL	0.00	0.00	7,056.00
302762	10/29/2019	MT14	O	7,035 GAL	0.00	0.00	7,035.00
302775	10/30/2019	MT14	O	7,008 GAL	0.00	0.00	7,008.00
302802	10/30/2019	MT14	O	7,071 GAL	0.00	0.00	7,071.00
302865	10/31/2019	MT14	O	7,066 GAL	0.00	0.00	7,066.00

J - JAMESTOWN W W T P

0.00	0.00	184,416.00
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26 tickets and 26 transactions

TOC - TOWN OF CANADEA WWTP

301318	10/1/2019	MT14	O	7,049 GAL	0.00	0.00	7,049.00
301338	10/1/2019	MT14	O	7,051 GAL	0.00	0.00	7,051.00
301457	10/3/2019	MT14	O	7,051 GAL	0.00	0.00	7,051.00

301479	10/3/2019	MT14	O	7,049 GAL	0.00	0.00	7,049.00
301532	10/4/2019	MT14	O	7,392 GAL	0.00	0.00	7,392.00
301546	10/4/2019	MT14	O	7,202 GAL	0.00	0.00	7,202.00

TOC - TOWN OF CANEADEA WWTP

301638	10/7/2019	MT14	O	7,013 GAL	0.00	0.00	7,013.00
301648	10/7/2019	MT14	O	7,068 GAL	0.00	0.00	7,068.00
301703	10/8/2019	MT14	O	7,059 GAL	0.00	0.00	7,059.00
301720	10/8/2019	MT14	O	7,054 GAL	0.00	0.00	7,054.00
301846	10/10/2019	MT14	O	7,039 GAL	0.00	0.00	7,039.00
301867	10/10/2019	MT14	O	7,073 GAL	0.00	0.00	7,073.00
301916	10/11/2019	MT14	O	7,054 GAL	0.00	0.00	7,054.00
301926	10/11/2019	MT14	O	6,984 GAL	0.00	0.00	6,984.00
302006	10/14/2019	MT14	O	7,049 GAL	0.00	0.00	7,049.00
302012	10/14/2019	MT14	O	7,061 GAL	0.00	0.00	7,061.00
302036	10/15/2019	MT14	O	7,008 GAL	0.00	0.00	7,008.00
302079	10/15/2019	MT14	O	7,020 GAL	0.00	0.00	7,020.00
302156	10/17/2019	MT14	O	7,121 GAL	0.00	0.00	7,121.00
302200	10/17/2019	MT14	O	7,030 GAL	0.00	0.00	7,030.00
302218	10/18/2019	MT14	O	6,989 GAL	0.00	0.00	6,989.00
302265	10/18/2019	MT14	O	7,284 GAL	0.00	0.00	7,284.00
302366	10/22/2019	MT14	O	7,061 GAL	0.00	0.00	7,061.00
302393	10/22/2019	MT14	O	7,023 GAL	0.00	0.00	7,023.00
302521	10/24/2019	MT32	O	6,982 GAL	0.00	0.00	6,982.00
302541	10/24/2019	MT32	O	6,999 GAL	0.00	0.00	6,999.00
302566	10/25/2019	MT32	O	6,965 GAL	0.00	0.00	6,965.00
302580	10/25/2019	MT32	O	6,963 GAL	0.00	0.00	6,963.00
302642	10/28/2019	MT14	O	7,073 GAL	0.00	0.00	7,073.00
302654	10/28/2019	MT14	O	7,042 GAL	0.00	0.00	7,042.00
302693	10/29/2019	MT14	O	7,037 GAL	0.00	0.00	7,037.00
302711	10/29/2019	MT14	O	6,992 GAL	0.00	0.00	6,992.00
302839	10/31/2019	MT14	O	7,087 GAL	0.00	0.00	7,087.00

TOC - TOWN OF CANEADEA WWTP

302854	10/31/2019	MT14	O	7,073 GAL	0.00	0.00	7,073.00
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TOC - TOWN OF CANEADEA WWTP

0.00	0.00	239,997.00
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34 tickets and 34 transactions

WWPT - WELLSVILLE NY WASTE WATER TREATM. PLANT

301313	10/1/2019	ME102	O	7,049 GAL	0.00	0.00	7,049.00
301333	10/1/2019	ME102	O	7,056 GAL	0.00	0.00	7,056.00
301349	10/1/2019	ME102	O	7,056 GAL	0.00	0.00	7,056.00
301384	10/2/2019	ME102	O	7,056 GAL	0.00	0.00	7,056.00
301389	10/2/2019	MT14	O	7,104 GAL	0.00	0.00	7,104.00
301403	10/2/2019	ME102	O	7,133 GAL	0.00	0.00	7,133.00
301409	10/2/2019	MT14	O	6,934 GAL	0.00	0.00	6,934.00
301419	10/2/2019	ME102	O	7,099 GAL	0.00	0.00	7,099.00
301439	10/2/2019	MTT14	O	4,687 GAL	0.00	0.00	4,687.00
301450	10/3/2019	ME102	O	7,075 GAL	0.00	0.00	7,075.00
301471	10/3/2019	ME102	O	7,054 GAL	0.00	0.00	7,054.00
301489	10/3/2019	ME102	O	7,075 GAL	0.00	0.00	7,075.00
301524	10/4/2019	ME102	O	7,083 GAL	0.00	0.00	7,083.00
301543	10/4/2019	ME102	O	7,133 GAL	0.00	0.00	7,133.00
301559	10/4/2019	ME102	O	7,080 GAL	0.00	0.00	7,080.00
301642	10/7/2019	ME102	O	7,087 GAL	0.00	0.00	7,087.00
301662	10/7/2019	ME102	O	7,049 GAL	0.00	0.00	7,049.00
301678	10/7/2019	ME102	O	7,130 GAL	0.00	0.00	7,130.00
301694	10/8/2019	ME102	O	7,111 GAL	0.00	0.00	7,111.00
301714	10/8/2019	ME102	O	7,066 GAL	0.00	0.00	7,066.00
301735	10/8/2019	ME102	O	7,068 GAL	0.00	0.00	7,068.00
301764	10/9/2019	ME102	O	7,011 GAL	0.00	0.00	7,011.00

WWPT - WELLSVILLE NY WASTE WATER TREATM. PLANT

301775	10/9/2019	MT14	O	7,073 GAL	0.00	0.00	7,073.00
301784	10/9/2019	ME102	O	7,085 GAL	0.00	0.00	7,085.00
301790	10/9/2019	MT14	O	6,905 GAL	0.00	0.00	6,905.00
301796	10/9/2019	ME102	O	7,080 GAL	0.00	0.00	7,080.00
301833	10/10/2019	ME102	O	7,035 GAL	0.00	0.00	7,035.00
301856	10/10/2019	ME102	O	7,049 GAL	0.00	0.00	7,049.00
301873	10/10/2019	ME102	O	7,119 GAL	0.00	0.00	7,119.00
301900	10/11/2019	ME102	O	7,119 GAL	0.00	0.00	7,119.00

301918	10/11/2019	ME102	O	6,970 GAL	0.00	0.00	6,970.00
301930	10/11/2019	ME102	O	6,960 GAL	0.00	0.00	6,960.00
301978	10/14/2019	ME102	O	7,054 GAL	0.00	0.00	7,054.00
301981	10/14/2019	MT14	O	6,996 GAL	0.00	0.00	6,996.00
301990	10/14/2019	ME102	O	7,054 GAL	0.00	0.00	7,054.00
301994	10/14/2019	MT14	O	7,006 GAL	0.00	0.00	7,006.00
302004	10/14/2019	ME102	O	7,066 GAL	0.00	0.00	7,066.00
302042	10/15/2019	ME102	O	7,128 GAL	0.00	0.00	7,128.00
302050	10/15/2019	MT14	O	7,020 GAL	0.00	0.00	7,020.00
302062	10/15/2019	ME102	O	7,171 GAL	0.00	0.00	7,171.00
302096	10/16/2019	ME102	O	7,152 GAL	0.00	0.00	7,152.00
302110	10/16/2019	ME102	O	7,138 GAL	0.00	0.00	7,138.00
302123	10/16/2019	ME102	O	7,083 GAL	0.00	0.00	7,083.00
302154	10/17/2019	ME102	O	7,162 GAL	0.00	0.00	7,162.00
302172	10/17/2019	ME102	O	7,181 GAL	0.00	0.00	7,181.00
302191	10/17/2019	ME102	O	7,174 GAL	0.00	0.00	7,174.00
302211	10/18/2019	ME102	O	7,039 GAL	0.00	0.00	7,039.00
302222	10/18/2019	ME102	O	7,049 GAL	0.00	0.00	7,049.00
302241	10/18/2019	ME102	O	7,008 GAL	0.00	0.00	7,008.00

WWPT - WELLSVILLE NY WASTE WATER TREATM. PLANT

302311	10/21/2019	ME102	O	7,011 GAL	0.00	0.00	7,011.00
302322	10/21/2019	ME102	O	7,063 GAL	0.00	0.00	7,063.00
302333	10/21/2019	ME102	O	7,035 GAL	0.00	0.00	7,035.00
302363	10/22/2019	ME102	O	7,174 GAL	0.00	0.00	7,174.00
302385	10/22/2019	ME102	O	7,047 GAL	0.00	0.00	7,047.00
302415	10/22/2019	ME102	O	7,130 GAL	0.00	0.00	7,130.00
302448	10/23/2019	MT14	O	7,039 GAL	0.00	0.00	7,039.00
302450	10/23/2019	ME102	O	7,044 GAL	0.00	0.00	7,044.00
302465	10/23/2019	MT14	O	7,004 GAL	0.00	0.00	7,004.00
302470	10/23/2019	ME102	O	7,015 GAL	0.00	0.00	7,015.00
302484	10/23/2019	ME102	O	7,025 GAL	0.00	0.00	7,025.00
302501	10/24/2019	ME102	O	7,023 GAL	0.00	0.00	7,023.00
302513	10/24/2019	ME102	O	6,975 GAL	0.00	0.00	6,975.00

302533	10/24/2019	ME102	O	7,015 GAL	0.00	0.00	7,015.00
302547	10/24/2019	ME102	O	7,020 GAL	0.00	0.00	7,020.00
302563	10/25/2019	ME102	O	7,001 GAL	0.00	0.00	7,001.00
302576	10/25/2019	ME102	O	7,020 GAL	0.00	0.00	7,020.00
302593	10/25/2019	ME102	O	7,027 GAL	0.00	0.00	7,027.00
302657	10/28/2019	ME015	O	6,996 GAL	0.00	0.00	6,996.00
302669	10/28/2019	ME015	O	6,999 GAL	0.00	0.00	6,999.00
302682	10/28/2019	ME015	O	7,027 GAL	0.00	0.00	7,027.00
302690	10/29/2019	ME015	O	6,953 GAL	0.00	0.00	6,953.00
302716	10/29/2019	ME015	O	7,035 GAL	0.00	0.00	7,035.00
302731	10/29/2019	ME015	O	7,039 GAL	0.00	0.00	7,039.00
302748	10/29/2019	ME015	O	7,015 GAL	0.00	0.00	7,015.00
302772	10/30/2019	ME015	O	6,982 GAL	0.00	0.00	6,982.00
302787	10/30/2019	ME015	O	7,054 GAL	0.00	0.00	7,054.00

WWPT - WELLSVILLE NY WASTE WATER TREATM. PLANT

302806	10/30/2019	ME015	O	7,059 GAL	0.00	0.00	7,059.00
302815	10/30/2019	ME015	O	7,104 GAL	0.00	0.00	7,104.00
302829	10/31/2019	ME015	O	7,063 GAL	0.00	0.00	7,063.00
302843	10/31/2019	ME015	O	6,975 GAL	0.00	0.00	6,975.00
302861	10/31/2019	ME015	O	6,960 GAL	0.00	0.00	6,960.00
302874	10/31/2019	ME015	O	7,054 GAL	0.00	0.00	7,054.00

WWPT - WELLSVILLE NY WASTE WATER TREATM

82 tickets and 82 transactions

0.00	0.00	576,055.00
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Report Grand Totals

156 tickets and 156 transactions

0.00	0.00	1,100,772.00
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End of Report

sRpDstGallons.rpt

Destination: All

Hyland Facility Associates
Destination Report

Transactions from 11/01/2019 through 11/30/2019
 Outbound Tickets Only
 Third Party and Intercompany Customers
 Recycle and Disposal Material
 Full Details

Ticket	Date	Truck	Trailer	In / Out	Bill Units	Cubic Yards	Tons
BWTP - OB / OUTBOUND / BELMONT							
303001	11/4/2019	ME015		O	7,183 GAL	0.00	7,183.00
303128	11/5/2019	ME015		O	7,178 GAL	0.00	7,178.00
303247	11/7/2019	ME102		O	7,178 GAL	0.00	7,178.00
303363	11/11/2019	ME102		O	6,956 GAL	0.00	6,956.00
303472	11/12/2019	ME102		O	7,157 GAL	0.00	7,157.00
303604	11/14/2019	ME102		O	7,183 GAL	0.00	7,183.00
303687	11/18/2019	ME0102		O	7,176 GAL	0.00	7,176.00
303807	11/19/2019	ME015		O	7,193 GAL	0.00	7,193.00
303928	11/21/2019	ME015		O	7,164 GAL	0.00	7,164.00
304039	11/25/2019	ME0015		O	7,176 GAL	0.00	7,176.00
304160	11/27/2019	ME015		O	7,174 GAL	0.00	7,174.00
304244	11/29/2019	ME102		O	7,130 GAL	0.00	7,130.00
					0.00	0.00	85,848.00

BWTP - OB / OUTBOUND / BELMONT

12 tickets and 12 transactions

J - JAMESTOWN W W T P

302934	11/1/2019	MT14		O	7,037 GAL	0.00	7,037.00
302968	11/1/2019	MT14		O	7,126 GAL	0.00	7,126.00
303012	11/4/2019	MT2		O	7,066 GAL	0.00	7,066.00

303104	11/5/2019	MT2	O	7,078 GAL	0.00	0.00	7,078.00
303126	11/5/2019	MT2	O	7,066 GAL	0.00	0.00	7,066.00
303134	11/6/2019	MT2	O	7,078 GAL	0.00	0.00	7,078.00
303161	11/6/2019	MT2	O	7,083 GAL	0.00	0.00	7,083.00
303190	11/6/2019	MT2	O	7,059 GAL	0.00	0.00	7,059.00
303202	11/7/2019	MT2	O	7,075 GAL	0.00	0.00	7,075.00
303231	11/7/2019	MT2	O	7,054 GAL	0.00	0.00	7,054.00
303258	11/8/2019	MT2	O	7,068 GAL	0.00	0.00	7,068.00

J - JAMESTOWN W W T P

303350	11/11/2019	MT14	O	7,097 GAL	0.00	0.00	7,097.00
303386	11/11/2019	MT14	O	7,035 GAL	0.00	0.00	7,035.00
303409	11/11/2019	MT14	O	7,099 GAL	0.00	0.00	7,099.00
303417	11/12/2019	MT14	O	7,075 GAL	0.00	0.00	7,075.00
303455	11/12/2019	MT14	O	7,035 GAL	0.00	0.00	7,035.00
303480	11/12/2019	MT14	O	7,073 GAL	0.00	0.00	7,073.00
303482	11/13/2019	MT14	O	7,087 GAL	0.00	0.00	7,087.00
303515	11/13/2019	MT14	O	7,035 GAL	0.00	0.00	7,035.00
303539	11/13/2019	MT14	O	7,080 GAL	0.00	0.00	7,080.00
303573	11/14/2019	MT14	O	7,013 GAL	0.00	0.00	7,013.00
303614	11/15/2019	MT14	O	7,097 GAL	0.00	0.00	7,097.00
303644	11/15/2019	MT14	O	7,059 GAL	0.00	0.00	7,059.00
303694	11/18/2019	MT14	O	7,030 GAL	0.00	0.00	7,030.00
303717	11/18/2019	MT14	O	7,049 GAL	0.00	0.00	7,049.00
303743	11/18/2019	MT14	O	7,121 GAL	0.00	0.00	7,121.00
303754	11/19/2019	MT14	O	7,174 GAL	0.00	0.00	7,174.00
303792	11/19/2019	MT14	O	7,025 GAL	0.00	0.00	7,025.00
303843	11/20/2019	MT14	O	7,109 GAL	0.00	0.00	7,109.00
303848	11/20/2019	MT014	O	7,104 GAL	0.00	0.00	7,104.00
303874	11/20/2019	MT14	O	7,083 GAL	0.00	0.00	7,083.00
303883	11/21/2019	MT14	O	7,085 GAL	0.00	0.00	7,085.00
303911	11/21/2019	MT14	O	7,073 GAL	0.00	0.00	7,073.00
303937	11/21/2019	MT14	O	7,018 GAL	0.00	0.00	7,018.00
303961	11/22/2019	MT14	O	7,061 GAL	0.00	0.00	7,061.00
303965	11/22/2019	MT14	O	7,066 GAL	0.00	0.00	7,066.00
303992	11/22/2019	MT14	O	7,054 GAL	0.00	0.00	7,054.00
304074	11/25/2019	MT14	O	7,059 GAL	0.00	0.00	7,059.00

J - JAMESTOWN W W T P

304139	11/26/2019	MT14	O	7,075 GAL	0.00	0.00	7,075.00
304221	11/27/2019	MT14	O	7,013 GAL	0.00	0.00	7,013.00
304276	11/29/2019	MT14	O	7,087 GAL	0.00	0.00	7,087.00

J - JAMESTOWN W W T P*41 tickets and 41 transactions*

0.00	0.00	289,861.00
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TOC - TOWN OF CANADEA WWTP

302896	11/1/2019	MT14	O	7,044 GAL	0.00	0.00	7,044.00
302916	11/1/2019	MT14	O	7,090 GAL	0.00	0.00	7,090.00
303040	11/4/2019	MT2	O	7,087 GAL	0.00	0.00	7,087.00
303052	11/4/2019	MT2	O	7,047 GAL	0.00	0.00	7,047.00
303064	11/5/2019	MT2	O	7,059 GAL	0.00	0.00	7,059.00
303083	11/5/2019	MT2	O	7,123 GAL	0.00	0.00	7,123.00
303207	11/7/2019	ME010	O	7,267 GAL	0.00	0.00	7,267.00
303221	11/7/2019	ME010	O	7,265 GAL	0.00	0.00	7,265.00
303271	11/8/2019	ME010	O	7,214 GAL	0.00	0.00	7,214.00
303284	11/8/2019	ME010	O	7,202 GAL	0.00	0.00	7,202.00
303346	11/11/2019	ME010	O	7,257 GAL	0.00	0.00	7,257.00
303367	11/11/2019	ME010	O	7,174 GAL	0.00	0.00	7,174.00
303434	11/12/2019	ME010	O	7,224 GAL	0.00	0.00	7,224.00
303456	11/12/2019	ME010	O	7,241 GAL	0.00	0.00	7,241.00
303560	11/14/2019	ME010	O	7,296 GAL	0.00	0.00	7,296.00
303581	11/14/2019	ME010	O	7,217 GAL	0.00	0.00	7,217.00
303619	11/15/2019	ME010	O	7,195 GAL	0.00	0.00	7,195.00
303633	11/15/2019	ME010	O	7,248 GAL	0.00	0.00	7,248.00
303690	11/18/2019	ME010	O	7,195 GAL	0.00	0.00	7,195.00
303701	11/18/2019	ME010	O	7,260 GAL	0.00	0.00	7,260.00

TOC - TOWN OF CANADEA WWTP

303751	11/19/2019	ME010	O	7,272 GAL	0.00	0.00	7,272.00
303767	11/19/2019	ME010	O	7,303 GAL	0.00	0.00	7,303.00
303897	11/21/2019	ME010	O	7,056 GAL	0.00	0.00	7,056.00
303932	11/21/2019	ME010	O	7,222 GAL	0.00	0.00	7,222.00
303939	11/22/2019	ME010	O	7,121 GAL	0.00	0.00	7,121.00
304051	11/25/2019	MT14	O	7,030 GAL	0.00	0.00	7,030.00
304062	11/25/2019	MT14	O	7,027 GAL	0.00	0.00	7,027.00

304107	11/26/2019	MT14	O	7,078 GAL	0.00	0.00	7,078.00
304125	11/26/2019	MT14	O	7,032 GAL	0.00	0.00	7,032.00
304248	11/29/2019	MT14	O	7,020 GAL	0.00	0.00	7,020.00
304259	11/29/2019	MT14	O	7,006 GAL	0.00	0.00	7,006.00
TOC - TOWN OF CANADEA WWTP					<u>0.00</u>	<u>0.00</u>	<u>221,872.00</u>

31 tickets and 31 transactions

WWPT - WELLSVILLE NY WASTE WATER TREATM. PLANT

302892	11/1/2019	ME015	O	6,977 GAL	0.00	0.00	6,977.00
302919	11/1/2019	ME015	O	6,975 GAL	0.00	0.00	6,975.00
302937	11/1/2019	ME015	O	6,994 GAL	0.00	0.00	6,994.00
303015	11/4/2019	ME015	O	7,015 GAL	0.00	0.00	7,015.00
303023	11/4/2019	ME015	O	7,020 GAL	0.00	0.00	7,020.00
303043	11/4/2019	ME015	O	7,023 GAL	0.00	0.00	7,023.00
303060	11/5/2019	ME015	O	7,027 GAL	0.00	0.00	7,027.00
303081	11/5/2019	ME015	O	7,008 GAL	0.00	0.00	7,008.00
303102	11/5/2019	ME015	O	7,008 GAL	0.00	0.00	7,008.00
303115	11/5/2019	ME015	O	7,020 GAL	0.00	0.00	7,020.00
303130	11/6/2019	ME015	O	7,073 GAL	0.00	0.00	7,073.00
303149	11/6/2019	ME015	O	7,001 GAL	0.00	0.00	7,001.00

WWPT - WELLSVILLE NY WASTE WATER TREATM. PLANT

303167	11/6/2019	ME015	O	7,018 GAL	0.00	0.00	7,018.00
303184	11/6/2019	ME015	O	6,975 GAL	0.00	0.00	6,975.00
303196	11/7/2019	ME015	O	7,011 GAL	0.00	0.00	7,011.00
303213	11/7/2019	ME015	O	7,035 GAL	0.00	0.00	7,035.00
303225	11/7/2019	ME015	O	7,018 GAL	0.00	0.00	7,018.00
303261	11/8/2019	ME102	O	6,989 GAL	0.00	0.00	6,989.00
303282	11/8/2019	ME102	O	7,059 GAL	0.00	0.00	7,059.00
303293	11/8/2019	ME102	O	7,051 GAL	0.00	0.00	7,051.00
303302	11/8/2019	ME102	O	6,999 GAL	0.00	0.00	6,999.00
303344	11/11/2019	ME102	O	6,992 GAL	0.00	0.00	6,992.00
303381	11/11/2019	ME102	O	7,008 GAL	0.00	0.00	7,008.00
303416	11/12/2019	ME102	O	7,011 GAL	0.00	0.00	7,011.00
303429	11/12/2019	ME102	O	6,934 GAL	0.00	0.00	6,934.00
303459	11/12/2019	ME102	O	7,004 GAL	0.00	0.00	7,004.00
303485	11/13/2019	ME102	O	7,027 GAL	0.00	0.00	7,027.00

303487	11/13/2019	ME010	O	7,107 GAL	0.00	0.00	7,107.00
303504	11/13/2019	ME102	O	7,035 GAL	0.00	0.00	7,035.00
303510	11/13/2019	ME010	O	6,637 GAL	0.00	0.00	6,637.00
303519	11/13/2019	ME102	O	7,037 GAL	0.00	0.00	7,037.00
303542	11/14/2019	ME102	O	6,987 GAL	0.00	0.00	6,987.00
303554	11/14/2019	ME102	O	7,001 GAL	0.00	0.00	7,001.00
303576	11/14/2019	ME102	O	7,030 GAL	0.00	0.00	7,030.00
303592	11/14/2019	ME102	O	7,051 GAL	0.00	0.00	7,051.00
303612	11/15/2019	ME102	O	6,968 GAL	0.00	0.00	6,968.00
303624	11/15/2019	ME102	O	7,023 GAL	0.00	0.00	7,023.00
303648	11/15/2019	ME102	O	7,039 GAL	0.00	0.00	7,039.00
303663	11/15/2019	ME102	O	6,980 GAL	0.00	0.00	6,980.00

WWPT - WELLSVILLE NY WASTE WATER TREATM. PLANT

303697	11/18/2019	ME102	O	7,025 GAL	0.00	0.00	7,025.00
303711	11/18/2019	ME102	O	7,039 GAL	0.00	0.00	7,039.00
303716	11/18/2019	ME010	O	7,102 GAL	0.00	0.00	7,102.00
303728	11/18/2019	ME102	O	7,030 GAL	0.00	0.00	7,030.00
303731	11/18/2019	ME010	O	7,025 GAL	0.00	0.00	7,025.00
303745	11/19/2019	ME015	O	7,037 GAL	0.00	0.00	7,037.00
303760	11/19/2019	ME015	O	6,944 GAL	0.00	0.00	6,944.00
303776	11/19/2019	ME015	O	7,004 GAL	0.00	0.00	7,004.00
303789	11/19/2019	ME010	O	6,992 GAL	0.00	0.00	6,992.00
303821	11/20/2019	ME015	O	6,963 GAL	0.00	0.00	6,963.00
303838	11/20/2019	ME015	O	6,999 GAL	0.00	0.00	6,999.00
303855	11/20/2019	ME015	O	7,030 GAL	0.00	0.00	7,030.00
303879	11/21/2019	ME015	O	7,020 GAL	0.00	0.00	7,020.00
303903	11/21/2019	ME015	O	7,039 GAL	0.00	0.00	7,039.00
303916	11/21/2019	ME015	O	7,049 GAL	0.00	0.00	7,049.00
303947	11/22/2019	ME015	O	6,980 GAL	0.00	0.00	6,980.00
303957	11/22/2019	ME010	O	7,471 GAL	0.00	0.00	7,471.00
303974	11/22/2019	ME010	O	7,116 GAL	0.00	0.00	7,116.00
304043	11/25/2019	ME015	O	6,977 GAL	0.00	0.00	6,977.00
304053	11/25/2019	ME015	O	6,958 GAL	0.00	0.00	6,958.00
304067	11/25/2019	ME015	O	6,963 GAL	0.00	0.00	6,963.00
304098	11/26/2019	ME015	O	6,999 GAL	0.00	0.00	6,999.00
304104	11/26/2019	ME015	O	7,051 GAL	0.00	0.00	7,051.00

304121	11/26/2019	ME015	O	6,898 GAL	0.00	0.00	6,898.00
304165	11/27/2019	ME015	O	6,994 GAL	0.00	0.00	6,994.00
304173	11/27/2019	MT14	O	6,994 GAL	0.00	0.00	6,994.00
304188	11/27/2019	ME102	O	6,982 GAL	0.00	0.00	6,982.00

WWPT - WELLSVILLE NY WASTE WATER TREATM. PLANT

304192	11/27/2019	MT14	O	6,996 GAL	0.00	0.00	6,996.00
304204	11/27/2019	ME102	O	6,999 GAL	0.00	0.00	6,999.00
304208	11/27/2019	MT14	O	6,982 GAL	0.00	0.00	6,982.00
304239	11/29/2019	ME102	O	7,037 GAL	0.00	0.00	7,037.00
304254	11/29/2019	ME102	O	7,047 GAL	0.00	0.00	7,047.00

WWPT - WELLSVILLE NY WASTE WATER TREATM. PLANT

71 tickets and 71 transactions

0.00	0.00	497,909.00
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Report Grand Totals

155 tickets and 155 transactions

0.00	0.00	1,095,490.00
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End of Report



sRpDstGallons.rpt

Hyland Facility Associates
Destination Report

Destination: All

Transactions from 12/01/2019 through 12/31/2019
 Outbound Tickets Only
 Third Party and Intercompany Customers
 Recycle and Disposal Material
 Full Details

Ticket	Date	Truck	Trailer	In / Out	Bill Units	Cubic Yards	Tons
BWTP - OB / OUTBOUND / BELMONT							
304346	12/2/2019	ME102		O	7,159 GAL	0.00	7,159.00
304414	12/3/2019	ME102		O	7,162 GAL	0.00	7,162.00
304545	12/6/2019	ME102		O	7,269 GAL	0.00	7,269.00
304649	12/9/2019	ME102		O	7,193 GAL	0.00	7,193.00
304758	12/11/2019	ME102		O	7,217 GAL	0.00	7,217.00
304860	12/13/2019	ME102		O	7,246 GAL	0.00	7,246.00
304961	12/16/2019	ME102		O	7,229 GAL	0.00	7,229.00
305051	12/18/2019	ME102		O	7,269 GAL	0.00	7,269.00
305144	12/20/2019	ME102B		O	7,121 GAL	0.00	7,121.00
305232	12/23/2019	ME102		O	7,229 GAL	0.00	7,229.00
305405	12/26/2019	ME102		O	7,253 GAL	0.00	7,253.00
305490	12/30/2019	ME102		O	7,234 GAL	0.00	7,234.00
					0.00	0.00	86,581.00

12 tickets and 12 transactions

J - JAMESTOWN W W T P

304396	12/3/2019	MT14		O	7,018 GAL	0.00	7,018.00
304419	12/3/2019	MT14		O	7,047 GAL	0.00	7,047.00
304478	12/4/2019	MT14		O	7,020 GAL	0.00	7,020.00
304525	12/5/2019	MT14		O	7,037 GAL	0.00	7,037.00

304587	12/6/2019	MT14	O	7,051 GAL	0.00	0.00	7,051.00
304623	12/7/2019	MT14	O	7,083 GAL	0.00	0.00	7,083.00
304626	12/7/2019	MT14	O	7,083 GAL	0.00	0.00	7,083.00
304677	12/9/2019	MT14	O	7,073 GAL	0.00	0.00	7,073.00
304734	12/10/2019	MT14	O	7,085 GAL	0.00	0.00	7,085.00
304798	12/11/2019	MT14	O	7,047 GAL	0.00	0.00	7,047.00
304840	12/12/2019	MT14	O	7,059 GAL	0.00	0.00	7,059.00

J - JAMESTOWN W W T P

304899	12/13/2019	MT14	O	7,037 GAL	0.00	0.00	7,037.00
304985	12/16/2019	MT14	O	7,054 GAL	0.00	0.00	7,054.00
305027	12/17/2019	MT14	O	7,051 GAL	0.00	0.00	7,051.00
305095	12/18/2019	MT14	O	7,054 GAL	0.00	0.00	7,054.00
305141	12/19/2019	MT14	O	7,234 GAL	0.00	0.00	7,234.00
305180	12/20/2019	MT14	O	7,004 GAL	0.00	0.00	7,004.00
305267	12/23/2019	MT14	O	7,049 GAL	0.00	0.00	7,049.00
305329	12/24/2019	MT14	O	7,037 GAL	0.00	0.00	7,037.00
305386	12/26/2019	MT14	O	7,044 GAL	0.00	0.00	7,044.00
305441	12/27/2019	MT14	O	6,987 GAL	0.00	0.00	6,987.00
305519	12/30/2019	MT14	O	7,008 GAL	0.00	0.00	7,008.00
305567	12/31/2019	MT14	O	6,977 GAL	0.00	0.00	6,977.00

J - JAMESTOWN W W T P

23 tickets and 23 transactions

0.00	0.00	162,139.00
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TOC - TOWN OF CANEADEA WWTP

304367	12/3/2019	MT14	O	7,037 GAL	0.00	0.00	7,037.00
304382	12/3/2019	MT14	O	7,035 GAL	0.00	0.00	7,035.00
304491	12/5/2019	MT14	O	7,080 GAL	0.00	0.00	7,080.00
304507	12/5/2019	MT14	O	7,011 GAL	0.00	0.00	7,011.00
304559	12/6/2019	MT14	O	7,027 GAL	0.00	0.00	7,027.00
304568	12/6/2019	MT14	O	7,049 GAL	0.00	0.00	7,049.00
304654	12/9/2019	MT14	O	6,999 GAL	0.00	0.00	6,999.00
304669	12/9/2019	MT14	O	6,980 GAL	0.00	0.00	6,980.00
304704	12/10/2019	MT14	O	7,027 GAL	0.00	0.00	7,027.00
304718	12/10/2019	MT14	O	7,073 GAL	0.00	0.00	7,073.00
304814	12/12/2019	MT14	O	7,047 GAL	0.00	0.00	7,047.00

TOC - TOWN OF CANEADEA WWTP

304830	12/12/2019	MT14	O	7,039 GAL	0.00	0.00	7,039.00
304872	12/13/2019	MT14	O	7,035 GAL	0.00	0.00	7,035.00

304886	12/13/2019	MT14	O	7,063 GAL	0.00	0.00	7,063.00
304967	12/16/2019	MT14	O	6,999 GAL	0.00	0.00	6,999.00
304978	12/16/2019	MT14	O	7,015 GAL	0.00	0.00	7,015.00
305007	12/17/2019	MT14	O	7,027 GAL	0.00	0.00	7,027.00
305017	12/17/2019	MT14	O	7,025 GAL	0.00	0.00	7,025.00
305123	12/19/2019	MT14	O	7,011 GAL	0.00	0.00	7,011.00
305135	12/19/2019	MT14	O	7,001 GAL	0.00	0.00	7,001.00
305159	12/20/2019	MT14	O	7,015 GAL	0.00	0.00	7,015.00
305170	12/20/2019	MT14	O	7,008 GAL	0.00	0.00	7,008.00
305245	12/23/2019	MT14	O	7,035 GAL	0.00	0.00	7,035.00
305257	12/23/2019	MT14	O	7,020 GAL	0.00	0.00	7,020.00
305299	12/24/2019	MT14	O	7,030 GAL	0.00	0.00	7,030.00
305318	12/24/2019	MT14	O	7,521 GAL	0.00	0.00	7,521.00
305362	12/26/2019	MT14	O	7,063 GAL	0.00	0.00	7,063.00
305373	12/26/2019	MT14	O	7,998 GAL	0.00	0.00	7,998.00
305415	12/27/2019	MT14	O	7,042 GAL	0.00	0.00	7,042.00
305428	12/27/2019	MT14	O	7,027 GAL	0.00	0.00	7,027.00
305499	12/30/2019	MT14	O	7,059 GAL	0.00	0.00	7,059.00
305508	12/30/2019	MT14	O	7,059 GAL	0.00	0.00	7,059.00
305543	12/31/2019	MT14	O	7,068 GAL	0.00	0.00	7,068.00
305559	12/31/2019	MT14	O	7,073 GAL	0.00	0.00	7,073.00
TOC - TOWN OF CANEADEA WWTP					<u>0.00</u>	<u>0.00</u>	<u>240,598.00</u>

34 tickets and 34 transactions

WWPT - WELLSVILLE NY WASTE WATER TREATM. PLANT

WWPT - WELLSVILLE NY WASTE WATER TREATM. PLANT

304348	12/2/2019	ME102	O	6,948 GAL	0.00	0.00	6,948.00
304353	12/2/2019	ME102	O	7,087 GAL	0.00	0.00	7,087.00
304359	12/2/2019	ME102	O	6,994 GAL	0.00	0.00	6,994.00
304365	12/3/2019	ME102	O	7,008 GAL	0.00	0.00	7,008.00
304385	12/3/2019	ME102	O	7,047 GAL	0.00	0.00	7,047.00
304403	12/3/2019	ME0102	O	6,944 GAL	0.00	0.00	6,944.00
304425	12/4/2019	MT14	O	6,956 GAL	0.00	0.00	6,956.00
304429	12/4/2019	ME102	O	7,037 GAL	0.00	0.00	7,037.00
304446	12/4/2019	MT14	O	6,929 GAL	0.00	0.00	6,929.00
304449	12/4/2019	ME102	O	7,015 GAL	0.00	0.00	7,015.00
304462	12/4/2019	MT14	O	6,948 GAL	0.00	0.00	6,948.00
304471	12/4/2019	ME102	O	7,018 GAL	0.00	0.00	7,018.00
304494	12/5/2019	ME102	O	7,027 GAL	0.00	0.00	7,027.00
304496	12/5/2019	ME102	O	6,996 GAL	0.00	0.00	6,996.00

304522	12/5/2019	ME102	O	6,948 GAL	0.00	0.00	6,948.00
304550	12/6/2019	ME102	O	7,039 GAL	0.00	0.00	7,039.00
304562	12/6/2019	ME102	O	6,953 GAL	0.00	0.00	6,953.00
304578	12/6/2019	ME102	O	6,934 GAL	0.00	0.00	6,934.00
304660	12/9/2019	ME102	O	6,963 GAL	0.00	0.00	6,963.00
304671	12/9/2019	ME102	O	6,958 GAL	0.00	0.00	6,958.00
304684	12/9/2019	ME102	O	7,039 GAL	0.00	0.00	7,039.00
304721	12/10/2019	ME102	O	7,054 GAL	0.00	0.00	7,054.00
304737	12/10/2019	ME102	O	7,037 GAL	0.00	0.00	7,037.00
304752	12/10/2019	ME102	O	7,056 GAL	0.00	0.00	7,056.00
304765	12/11/2019	MT14	O	6,939 GAL	0.00	0.00	6,939.00
304771	12/11/2019	ME102	O	6,917 GAL	0.00	0.00	6,917.00
304774	12/11/2019	MT14	O	6,934 GAL	0.00	0.00	6,934.00

WWPT - WELLSVILLE NY WASTE WATER TREATM. PLANT

304781	12/11/2019	ME102	O	7,011 GAL	0.00	0.00	7,011.00
304785	12/11/2019	MT14	O	6,946 GAL	0.00	0.00	6,946.00
304794	12/11/2019	ME102	O	7,032 GAL	0.00	0.00	7,032.00
304808	12/12/2019	ME102	O	7,023 GAL	0.00	0.00	7,023.00
304827	12/12/2019	ME102	O	7,027 GAL	0.00	0.00	7,027.00
304838	12/12/2019	ME102	O	7,025 GAL	0.00	0.00	7,025.00
304862	12/13/2019	ME102	O	7,071 GAL	0.00	0.00	7,071.00
304877	12/13/2019	ME102	O	7,039 GAL	0.00	0.00	7,039.00
304892	12/13/2019	ME102	O	7,039 GAL	0.00	0.00	7,039.00
304969	12/16/2019	ME102	O	6,965 GAL	0.00	0.00	6,965.00
304982	12/16/2019	ME102	O	7,054 GAL	0.00	0.00	7,054.00
304991	12/16/2019	ME102	O	7,025 GAL	0.00	0.00	7,025.00
304998	12/17/2019	ME102	O	7,001 GAL	0.00	0.00	7,001.00
305012	12/17/2019	ME102	O	7,001 GAL	0.00	0.00	7,001.00
305026	12/17/2019	ME102	O	7,006 GAL	0.00	0.00	7,006.00
305059	12/18/2019	MT14	O	6,903 GAL	0.00	0.00	6,903.00
305070	12/18/2019	ME102	O	7,047 GAL	0.00	0.00	7,047.00
305075	12/18/2019	MT14	O	6,922 GAL	0.00	0.00	6,922.00
305082	12/18/2019	MT14	O	6,989 GAL	0.00	0.00	6,989.00
305098	12/19/2019	ME102	O	7,025 GAL	0.00	0.00	7,025.00
305114	12/19/2019	ME102	O	6,960 GAL	0.00	0.00	6,960.00
305126	12/19/2019	ME102	O	7,008 GAL	0.00	0.00	7,008.00
305137	12/19/2019	ME001	O	7,030 GAL	0.00	0.00	7,030.00
305149	12/20/2019	ME102	O	6,972 GAL	0.00	0.00	6,972.00
305163	12/20/2019	ME102	O	7,018 GAL	0.00	0.00	7,018.00
305175	12/20/2019	ME102	O	6,941 GAL	0.00	0.00	6,941.00
305237	12/23/2019	ME102	O	7,083 GAL	0.00	0.00	7,083.00

WWPT - WELLSVILLE NY WASTE WATER TREATM. PLANT

305250	12/23/2019	ME102	O	7,047 GAL	0.00	0.00	7,047.00
305264	12/23/2019	ME102	O	7,181 GAL	0.00	0.00	7,181.00
305279	12/23/2019	ME102	O	6,958 GAL	0.00	0.00	6,958.00
305298	12/24/2019	ME102	O	6,994 GAL	0.00	0.00	6,994.00
305304	12/24/2019	ME102	O	7,054 GAL	0.00	0.00	7,054.00
305321	12/24/2019	ME102	O	6,963 GAL	0.00	0.00	6,963.00
305336	12/24/2019	ME102	O	7,023 GAL	0.00	0.00	7,023.00
305355	12/26/2019	ME102	O	7,042 GAL	0.00	0.00	7,042.00
305359	12/26/2019	ME102	O	6,987 GAL	0.00	0.00	6,987.00
305376	12/26/2019	ME102	O	7,102 GAL	0.00	0.00	7,102.00
305393	12/26/2019	ME102	O	6,970 GAL	0.00	0.00	6,970.00
305407	12/27/2019	ME102	O	7,056 GAL	0.00	0.00	7,056.00
305423	12/27/2019	ME102	O	6,994 GAL	0.00	0.00	6,994.00
305444	12/27/2019	ME102	O	7,035 GAL	0.00	0.00	7,035.00
305493	12/30/2019	ME102	O	7,073 GAL	0.00	0.00	7,073.00
305502	12/30/2019	ME102	O	7,054 GAL	0.00	0.00	7,054.00
305517	12/30/2019	ME102	O	6,984 GAL	0.00	0.00	6,984.00
305523	12/30/2019	ME102	O	6,987 GAL	0.00	0.00	6,987.00
305536	12/31/2019	ME102	O	7,032 GAL	0.00	0.00	7,032.00
305539	12/31/2019	ME102	O	7,027 GAL	0.00	0.00	7,027.00
305558	12/31/2019	ME102	O	7,035 GAL	0.00	0.00	7,035.00
305570	12/31/2019	ME001	O	6,975 GAL	0.00	0.00	6,975.00
					<u>0.00</u>	<u>0.00</u>	<u>532,461.00</u>

WWPT - WELLSVILLE NY WASTE WATER TREATM. PLANT

76 tickets and 76 transactions

Report Grand Totals

<u>0.00</u>	<u>0.00</u>	<u>1,021,779.00</u>
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145 tickets and 145 transactions

End of Report

ATTACHMENT 8 – LEAK DETECTION SYSTEM

Hyland Facility Associates

Leak Detection System - Fluid Collected on a Weekly Basis

1ST Qrt 2019

	Week of	4-Jan	11-Jan	18-Jan	1-Feb	8-Feb	15-Feb	22-Feb	1-Mar	8-Mar	15-Mar	22-Mar	29-Mar
Location	Fluid	gals	gals	gals	gals	gals	gals	gals	gals	gals	gals	gals	gals
Detection Port No. 1 @ Impoundment		0	0	0	0	0	0	0	0	0	0	0	0
Detection Port No. 2 @ Impoundment		0	0	0	0	0	0	0	0	0	0	0	0
Detection Port No. 3 @ Cell 4		0	0	0	0	0	0	0	0	0	0	0	0
Detection Port No. 4 @ Cell 5		0	0	0	0	0	0	0	0	0	0	0	0

There was some accumulated condensation in the manholes but no leachate from pipe secondaries

Hyland Facility Associates

Leak Detection System - Fluid Collected on a Weekly Basis

2nd Qrt 2019

	Week of	5-Apr	12-Apr	19-Apr	26-Apr	3-May	10-May	17-May	24-May	31-May	7-Jun	14-Jun	21-Jun	28-Jun
Location	Fluid	gals	gals	gals	gals	gals	gals	gals	gals	gals	gals	gals	gals	gals
Detection Port No. 1 @ Impoundment		0	0	0	0	0	0	0	0	0	0	0	0	0
Detection Port No. 2 @ Impoundment		0	0	0	0	0	0	0	0	0	0	0	0	0
Detection Port No. 3 @ Cell 4		0	0	0	0	0	0	0	0	0	0	0	0	0
Detection Port No. 4 @ Cell 5		0	0	0	0	0	0	0	0	0	0	0	0	0

There was some accumulated condensation in the manholes but no leachate from pipe secondaries

Hyland Facility Associates

Leak Detection System - Fluid Collected on a Weekly Basis

3RD Qrt 2019

	Week of	5-Jul	12-Jul	19-Jul	26-Jul	2-Aug	9-Aug	16-Aug	23-Aug	30-Aug	6-Sep	13-Sep	20-Sep	27-Sep
Location	Fluid	gals	gals	gals	gals	gals	gals	gals	gals	gals	gals	gals	gals	gals
Detection Port No. 1 @ Impoundment		0	0	0	0	0	0	0	0	0	0	0	0	0
Detection Port No. 2 @ Impoundment		0	0	0	0	0	0	0	0	0	0	0	0	0
Detection Port No. 3 @ Cell 4		0	0	0	0	0	0	0	0	0	0	0	0	0
Detection Port No. 4 @ Cell 5		0	0	0	0	0	0	0	0	0	0	0	0	0

There was some accumulated condensation in the manholes but no leachate from pipe secondaries

Hyland Facility Associates

Leak Detection System - Fluid Collected on a Weekly Basis

4th Quarter 2019

	Week of	3-Oct	10-Oct	17-Oct	24-Oct	31-Oct	7-Nov	14-Nov	21-Nov	28-Nov	5-Dec	12-Dec	19-Dec	25-Dec
Location	Fluid	gals	gals	gals	gals	gals	gals	gals	gals	gals	gals	gals	gals	gals
Detection Port No. 1 @ Impoundment		0	0	0	0	0	0	0	0	0	0	0	0	0
Detection Port No. 2 @ Impoundment		0	0	0	0	0	0	0	0	0	0	0	0	0

There was some accumulated condensation in the manholes but no leachate

ATTACHMENT 9 – TONNAGE REPORTS

TONNAGE FOR 4TH QUARTER 2019

Hyland Facility Associates
 Angelica, NY

Tabulation of trucks delivering waste to the site on a daily basis for
 October, November, December 2019 (Includes BUD Materials)

Date	# of Trucks
10/1/19	64
10/2/19	58
10/3/19	63
10/4/19	60
10/5/19	38
10/6/19	0
10/7/19	59
10/8/19	63
10/9/19	59
10/10/19	63
10/11/19	54
10/12/19	13
10/13/19	0
10/14/19	41
10/15/19	64
10/16/19	46
10/17/19	57
10/18/19	56
10/19/19	31
10/20/19	0
10/21/19	44
10/22/19	78
10/23/19	57
10/24/19	55
10/25/19	50
10/26/19	21
10/27/19	0
10/28/19	39
10/29/19	71
10/30/19	54
10/31/19	55

Total 1413

Date	# of Trucks
11/1/19	72
11/2/19	31
11/3/19	0
11/4/19	52
11/5/19	61
11/6/19	58
11/7/19	51
11/8/19	47
11/9/19	35
11/10/19	0
11/11/19	64
11/12/19	56
11/13/19	52
11/14/19	56
11/15/19	62
11/16/19	11
11/17/19	0
11/18/19	46
11/19/19	63
11/20/19	54
11/21/19	52
11/22/19	53
11/23/19	40
11/24/19	0
11/25/19	45
11/26/19	63
11/27/19	64
11/28/19	0
11/29/19	44
11/30/19	59

Total 1291

Date	# of Trucks
12/1/19	0
12/2/19	16
12/3/19	49
12/4/19	58
12/5/19	52
12/6/19	57
12/7/19	38
12/8/19	0
12/9/19	42
12/10/19	52
12/11/19	43
12/12/19	45
12/13/19	49
12/14/19	41
12/15/19	0
12/16/19	34
12/17/19	47
12/18/19	40
12/19/19	39
12/20/19	50
12/21/19	30
12/22/19	0
12/23/19	47
12/24/19	54
12/25/19	0
12/26/19	48
12/27/19	41
12/28/19	33
12/29/19	0
12/30/19	33
12/31/19	35

Total 1073

RpCatMat.rpt

Category: All

Hyland Facility Associates
Category / Material Report

Transactions from 10/01/2019 through 10/31/2019
 Inbound and Outbound Tickets
 Third Party and Intercompany Customers
 Recycle and Disposal Material
 Material Summary

	BillUnits	Cubic Yards	Tons	Est Tons
ASB - ASBESTOS				
BAFA - BAGGED FRIABLE ASBESTOS <i>5 tickets and 5 transactions</i>	23.11 T	0.00	23.11	0.00
BUFA - BULK FRIABLE ASBESTOS <i>11 tickets and 11 transactions</i>	245.61 T	0.00	245.61	0.00
ICBA - I/C BAGGED FRIABLE ASBESTOS <i>5 tickets and 5 transactions</i>	34.94 T	0.00	34.94	0.00
ASB - ASBESTOS <i>21 tickets and 21 transactions</i>		0.00	303.66	0.00
BUD - BUD ADC				
BDCS - BUD CONTAMINATED SOIL <i>6 tickets and 6 transactions</i>	140.02 T	0.00	140.02	0.00
CDAD - CONSTRUCTION DEBRIS (BUD ADC) <i>76 tickets and 76 transactions</i>	2,382.80 T	0.00	2,382.80	0.00
UPAS - 1730 AUTO SHREDDER <i>42 tickets and 42 transactions</i>	1,160.72 T	0.00	1,160.72	0.00
BUD - BUD ADC <i>124 tickets and 124 transactions</i>		0.00	3,683.54	0.00

BUDSBA - BUD SOLIDIFICATION BULKING AGENT**1730 - ASR BULKING AGENT 1730S***8 tickets and 8 transactions*

222.47 T 0.00 222.47 0.00

BUDSBA - BUD SOLIDIFICATION BULKING AGENT*8 tickets and 8 transactions*

0.00

222.47

0.00**C&D - CONSTRUCTION DEBRIS****CD - CONSTRUCTION DEBRIS***180 tickets and 180 transactions*

1,871.15 T 0.00 1,871.15 0.00

ICCD - I-C CONSTRUCTION DEBRIS*10 tickets and 10 transactions*

34.81 T 0.00 34.81 0.00

C&D - CONSTRUCTION DEBRIS*190 tickets and 190 transactions*

0.00

1,905.96

0.00**IND - INDUSTRIAL****4217 - NON-HAZ SOLIDS 4217***6 tickets and 6 transactions*

18.81 T 0.00 18.81 0.00

4867 - I/C SAWDUST 4867*1 ticket and 1 transaction*

5.15 T 0.00 5.15 0.00

6090 - I/C PLANT TRASH 6090*1 ticket and 1 transaction*

3.87 T 0.00 3.87 0.00

6534 - I/C PLANT TRASH 6534*5 tickets and 5 transactions*

12.62 T 0.00 12.62 0.00

6535 - I/C PLANT TRASH 6535*2 tickets and 2 transactions*

6.19 T 0.00 6.19 0.00

6645 - MIXED PLANT TRASH 6645*9 tickets and 9 transactions*

55.89 T 0.00 55.89 0.00

6646 - MIXED PLANT TRASH 6646*1 ticket and 1 transaction*

5.62 T 0.00 5.62 0.00

ICES - 189 INDUSTRIAL / PLANT TRASH*5 tickets and 5 transactions*

53.37 T 0.00 53.37 0.00

ICHA - 188 INDUSTRIAL / PLANT TRASH*4 tickets and 4 transactions*

10.71 T 0.00 10.71 0.00

ICIN - I-C INDUSTRIAL*4 tickets and 4 transactions*

43.86 T 0.00 43.86 0.00

ICLE - 1548 I/C TOBACCO*4 tickets and 4 transactions*

14.07 T 0.00 14.07 0.00

ICSD - I/C SAPUTO DAIRY TRASH <i>13 tickets and 13 transactions</i>	67.86 T	0.00	67.86	0.00
IND - INDUSTRIAL <i>55 tickets and 55 transactions</i>		<u>0.00</u>	<u>298.02</u>	<u>0.00</u>
LEACH - LEACHATE				
LEACH - LEACHATE <i>156 tickets and 156 transactions</i>	1,100,772.00 GAL	0.00	0.00	0.00
LEACH - LEACHATE <i>156 tickets and 156 transactions</i>		<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
MISC - MISC CHARGES				
MISC - MISC CHARGES				
CO - CLEAN OUT SERVICE <i>5 tickets and 5 transactions</i>	5.00 U	0.00	0.00	0.00
DO - DIG OUT SERVICE <i>7 tickets and 7 transactions</i>	7.00 U	0.00	0.00	0.00
MBTI - MBI TIPPER CHARGE <i>209 tickets and 209 transactions</i>	209.00 U	0.00	0.00	0.00
MBTP - I/C MBI TIPPER <i>35 tickets and 35 transactions</i>	35.00 U	0.00	0.00	0.00
MISC - MISC CHARGES <i>249 tickets and 256 transactions</i>		<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
MSW - MUNICIPAL SOLID WASTE				
ICAW - I/C Allegany Cty Waste <i>6 tickets and 6 transactions</i>	19.12 T	0.00	19.12	0.00
ICCP - MSW POTTER COUNTY <i>7 tickets and 7 transactions</i>	127.21 T	0.00	127.21	0.00
ICMS - I-C MSW <i>139 tickets and 139 transactions</i>	4,962.36 T	0.00	4,962.36	0.00
MS - MSW <i>609 tickets and 609 transactions</i>	16,614.20 T	0.00	16,614.20	0.00
MSW - MUNICIPAL SOLID WASTE <i>761 tickets and 761 transactions</i>		<u>0.00</u>	<u>21,722.89</u>	<u>0.00</u>
MX - MIXED C&D AND MSW				

ICMX - I-C MSW & CD MIXED TRASH <i>2 tickets and 2 transactions</i>	3.75 T	0.00	3.75	0.00
ICTR - I/C Mixed Waste TT <i>84 tickets and 84 transactions</i>	2,756.70 T	0.00	2,756.70	0.00
MX - MSW & MIXED TRASH <i>26 tickets and 26 transactions</i>	233.61 T	0.00	233.61	0.00
MX - MIXED C&D AND MSW <i>112 tickets and 112 transactions</i>		<u>0.00</u>	<u>2,994.06</u>	<u>0.00</u>
SIM - INDUSTRIAL SOLIDIFICATION				
SIM - INDUSTRIAL SOLIDIFICATION				
4155 - NON-HAZ LIQUID 4155 <i>6 tickets and 6 transactions</i>	92.48 T	0.00	92.48	0.00
4286 - I/C NON HAZ LIQUIDS 4286 <i>1 ticket and 1 transaction</i>	20.70 T	0.00	20.70	0.00
4427 - NON-HAZ LIQUID 4427 <i>4 tickets and 4 transactions</i>	23.44 T	0.00	23.44	0.00
4966 - OILY TANK BOTTOMS 4966 <i>3 tickets and 3 transactions</i>	33.84 T	0.00	33.84	0.00
MSSL - INDUSTRIAL SOLIDIFICATION <i>9 tickets and 9 transactions</i>	84.68 T	0.00	84.68	0.00
SIM - INDUSTRIAL SOLIDIFICATION <i>23 tickets and 23 transactions</i>		<u>0.00</u>	<u>255.14</u>	<u>0.00</u>
SS - SEWAGE SLUDGE				
ICOS - 582 OLEAN WWTP SLUDGE <i>13 tickets and 13 transactions</i>	179.36 T	0.00	179.36	0.00
ICSL - I/C SLUDGE <i>108 tickets and 108 transactions</i>	3,556.36 T	0.00	3,556.36	0.00
SL - SLUDGE <i>7 tickets and 7 transactions</i>	238.66 T	0.00	238.66	0.00
VWSL - 331 WWTP SLUDGE <i>4 tickets and 4 transactions</i>	55.42 T	0.00	55.42	0.00
SS - SEWAGE SLUDGE <i>132 tickets and 132 transactions</i>		<u>0.00</u>	<u>4,029.80</u>	<u>0.00</u>
<u>Report Grand Totals</u>		<u>0.00</u>	<u>35,415.54</u>	<u>0.00</u>

1,582 tickets and 1,838 transactions

End of Report

RpCatMat.rpt

Category: All

Hyland Facility Associates
Category / Material Report

Transactions from 11/01/2019 through 11/30/2019
 Inbound and Outbound Tickets
 Third Party and Intercompany Customers
 Recycle and Disposal Material
 Material Summary

	BillUnits	Cubic Yards	Tons	Est Tons
ASB - ASBESTOS				
BAFA - BAGGED FRIABLE ASBESTOS <i>1 ticket and 1 transaction</i>	1.54 T	0.00	1.54	0.00
ASB - ASBESTOS <i>1 ticket and 1 transaction</i>		0.00	1.54	0.00
BUD - BUD ADC				
CDAD - CONSTRUCTION DEBRIS (BUD ADC) <i>62 tickets and 62 transactions</i>	2,007.52 T	0.00	2,007.52	0.00
UPAS - 1730 AUTO SHREDDER <i>48 tickets and 48 transactions</i>	1,331.75 T	0.00	1,331.75	0.00
BUD - BUD ADC <i>110 tickets and 110 transactions</i>		0.00	3,339.27	0.00
BUDSBA - BUD SOLIDIFICATION BULKING AGENT				
1730 - ASR BULKING AGENT 1730S <i>13 tickets and 13 transactions</i>	362.48 T	0.00	362.48	0.00
BUDSBA - BUD SOLIDIFICATION BULKING AGENT <i>13 tickets and 13 transactions</i>		0.00	362.48	0.00

C&D - CONSTRUCTION DEBRIS

CD - CONSTRUCTION DEBRIS <i>142 tickets and 142 transactions</i>	1,872.42 T	0.00	1,872.42	0.00
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ICCD - I-C CONSTRUCTION DEBRIS <i>7 tickets and 7 transactions</i>	35.04 T	0.00	35.04	0.00
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C&D - CONSTRUCTION DEBRIS <i>149 tickets and 149 transactions</i>		<hr/> 0.00	<hr/> 1,907.46	<hr/> 0.00
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IND - INDUSTRIAL

4217 - NON-HAZ SOLIDS 4217 <i>4 tickets and 4 transactions</i>	10.97 T	0.00	10.97	0.00
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4867 - I/C SAWDUST 4867 <i>1 ticket and 1 transaction</i>	4.21 T	0.00	4.21	0.00
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IND - INDUSTRIAL

6090 - I/C PLANT TRASH 6090 <i>1 ticket and 1 transaction</i>	3.71 T	0.00	3.71	0.00
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6534 - I/C PLANT TRASH 6534 <i>4 tickets and 4 transactions</i>	8.90 T	0.00	8.90	0.00
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6535 - I/C PLANT TRASH 6535 <i>2 tickets and 2 transactions</i>	5.73 T	0.00	5.73	0.00
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6645 - MIXED PLANT TRASH 6645 <i>10 tickets and 10 transactions</i>	68.46 T	0.00	68.46	0.00
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6646 - MIXED PLANT TRASH 6646 <i>2 tickets and 2 transactions</i>	10.85 T	0.00	10.85	0.00
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ICES - 189 INDUSTRIAL / PLANT TRASH <i>3 tickets and 3 transactions</i>	35.87 T	0.00	35.87	0.00
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ICHA - 188 INDUSTRIAL / PLANT TRASH <i>5 tickets and 5 transactions</i>	20.40 T	0.00	20.40	0.00
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ICLE - 1548 I/C TOBACCO <i>5 tickets and 5 transactions</i>	16.97 T	0.00	16.97	0.00
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ICSD - I/C SAPUTO DAIRY TRASH <i>13 tickets and 13 transactions</i>	69.32 T	0.00	69.32	0.00
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ICTQ - 1660 IC General Trash <i>1 ticket and 1 transaction</i>	2.50 T	0.00	2.50	0.00
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IND - INDUSTRIAL <i>51 tickets and 51 transactions</i>		<hr/> 0.00	<hr/> 257.89	<hr/> 0.00
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LEACH - LEACHATE

LEACH - LEACHATE <i>155 tickets and 155 transactions</i>	1,095,490.00 GAL	0.00	0.00	0.00
LEACH - LEACHATE <i>155 tickets and 155 transactions</i>		<hr/> 0.00	<hr/> 0.00	<hr/> 0.00
MISC - MISC CHARGES				
CO - CLEAN OUT SERVICE <i>3 tickets and 3 transactions</i>	3.00 U	0.00	0.00	0.00
DO - DIG OUT SERVICE <i>9 tickets and 9 transactions</i>	9.00 U	0.00	0.00	0.00
MISC - MISC CHARGES				
ICDO - I-C DIG OUT SERVICE <i>2 tickets and 2 transactions</i>	2.00 U	0.00	0.00	0.00
MBTI - MBI TIPPER CHARGE <i>137 tickets and 137 transactions</i>	137.00 U	0.00	0.00	0.00
MBTP - I/C MBI TIPPER <i>48 tickets and 48 transactions</i>	48.00 U	0.00	0.00	0.00
MISC - MISC CHARGES <i>192 tickets and 199 transactions</i>		<hr/> 0.00	<hr/> 0.00	<hr/> 0.00
MSW - MUNICIPAL SOLID WASTE				
ICAW - I/C Allegany Cty Waste <i>3 tickets and 3 transactions</i>	12.56 T	0.00	12.56	0.00
ICCP - MSW POTTER COUNTY <i>3 tickets and 3 transactions</i>	40.32 T	0.00	40.32	0.00
ICMS - I-C MSW <i>154 tickets and 154 transactions</i>	5,544.84 T	0.00	5,544.84	0.00
MS - MSW <i>535 tickets and 535 transactions</i>	14,627.63 T	0.00	14,627.63	0.00
MSW - MUNICIPAL SOLID WASTE <i>695 tickets and 695 transactions</i>		<hr/> 0.00	<hr/> 20,225.35	<hr/> 0.00
MX - MIXED C&D AND MSW				
ICTR - I/C Mixed Waste TT <i>81 tickets and 81 transactions</i>	2,453.73 T	0.00	2,453.73	0.00
MX - MSW & MIXED TRASH <i>21 tickets and 21 transactions</i>	231.72 T	0.00	231.72	0.00
MX - MIXED C&D AND MSW <i>102 tickets and 102 transactions</i>		<hr/> 0.00	<hr/> 2,685.45	<hr/> 0.00

SIM - INDUSTRIAL SOLIDIFICATION

4155 - NON-HAZ LIQUID 4155 <i>4 tickets and 4 transactions</i>	62.23 T	0.00	62.23	0.00
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4286 - I/C NON HAZ LIQUIDS 4286 <i>1 ticket and 1 transaction</i>	21.74 T	0.00	21.74	0.00
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SIM - INDUSTRIAL SOLIDIFICATION

4427 - NON-HAZ LIQUID 4427 <i>1 ticket and 1 transaction</i>	6.21 T	0.00	6.21	0.00
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4966 - OILY TANK BOTTOMS 4966 <i>5 tickets and 5 transactions</i>	62.83 T	0.00	62.83	0.00
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6112 - OFF SPEC PROD W/LIQ 6112 <i>2 tickets and 2 transactions</i>	22.37 T	0.00	22.37	0.00
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MSSL - INDUSTRIAL SOLIDIFICATION <i>3 tickets and 3 transactions</i>	21.10 T	0.00	21.10	0.00
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SIM - INDUSTRIAL SOLIDIFICATION <i>16 tickets and 16 transactions</i>		<u>0.00</u>	<u>196.48</u>	<u>0.00</u>
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SS - SEWAGE SLUDGE

ICOS - 582 OLEAN WWTP SLUDGE <i>8 tickets and 8 transactions</i>	114.16 T	0.00	114.16	0.00
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ICSL - I/C SLUDGE <i>140 tickets and 140 transactions</i>	4,978.68 T	0.00	4,978.68	0.00
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ICWN - 2021 I/C WWTP SLUDGE <i>2 tickets and 2 transactions</i>	35.86 T	0.00	35.86	0.00
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SL - SLUDGE <i>6 tickets and 6 transactions</i>	209.07 T	0.00	209.07	0.00
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VWSL - 331 WWTP SLUDGE <i>4 tickets and 4 transactions</i>	56.39 T	0.00	56.39	0.00
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SS - SEWAGE SLUDGE <i>160 tickets and 160 transactions</i>		<u>0.00</u>	<u>5,394.16</u>	<u>0.00</u>
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TIRES - MISC CHARGES

HAFE - HANDLING FEE <i>1 ticket and 1 transaction</i>	1.00 U	0.00	0.00	0.00
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TIRES - MISC CHARGES <i>1 ticket and 1 transaction</i>		<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
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<u>Report Grand Totals</u>		<u>0.00</u>	<u>34,370.08</u>	<u>0.00</u>
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1,452 tickets and 1,652 transactions

End of Report

RpCatMat.rpt

Category: All

Hyland Facility Associates
Category / Material Report

Transactions from 12/01/2019 through 12/31/2019
 Inbound and Outbound Tickets
 Third Party and Intercompany Customers
 Recycle and Disposal Material
 Material Summary

	BillUnits	Cubic Yards	Tons	Est Tons
BUD - BUD ADC				
CDAD - CONSTRUCTION DEBRIS (BUD ADC) <i>33 tickets and 33 transactions</i>	1,140.94 T	0.00	1,140.94	0.00
ICBD - I/C BUD ADC <i>1 ticket and 1 transaction</i>	9.26 T	0.00	9.26	0.00
UPAS - 1730 AUTO SHREDDER <i>59 tickets and 59 transactions</i>	1,720.29 T	0.00	1,720.29	0.00
BUD - BUD ADC <i>93 tickets and 93 transactions</i>		0.00	2,870.49	0.00
BUDSBA - BUD SOLIDIFICATION BULKING AGENT				
1730 - ASR BULKING AGENT 1730S <i>12 tickets and 12 transactions</i>	330.37 T	0.00	330.37	0.00
BUDSBA - BUD SOLIDIFICATION BULKING AGENT <i>12 tickets and 12 transactions</i>		0.00	330.37	0.00
C&D - CONSTRUCTION DEBRIS				
CD - CONSTRUCTION DEBRIS <i>138 tickets and 138 transactions</i>	2,060.28 T	0.00	2,060.28	0.00

ICCD - I-C CONSTRUCTION DEBRIS <i>4 tickets and 4 transactions</i>	16.10 T	0.00	16.10	0.00
C&D - CONSTRUCTION DEBRIS <i>142 tickets and 142 transactions</i>		<u>0.00</u>	<u>2,076.38</u>	<u>0.00</u>
IND - INDUSTRIAL				
4217 - NON-HAZ SOLIDS 4217 <i>6 tickets and 6 transactions</i>	22.49 T	0.00	22.49	0.00
4867 - I/C SAWDUST 4867 <i>1 ticket and 1 transaction</i>	4.09 T	0.00	4.09	0.00
6090 - I/C PLANT TRASH 6090 <i>1 ticket and 1 transaction</i>	3.93 T	0.00	3.93	0.00
6534 - I/C PLANT TRASH 6534 <i>4 tickets and 4 transactions</i>	8.29 T	0.00	8.29	0.00
6535 - I/C PLANT TRASH 6535 <i>3 tickets and 3 transactions</i>	6.65 T	0.00	6.65	0.00
IND - INDUSTRIAL				
6645 - MIXED PLANT TRASH 6645 <i>9 tickets and 9 transactions</i>	56.57 T	0.00	56.57	0.00
6646 - MIXED PLANT TRASH 6646 <i>1 ticket and 1 transaction</i>	6.09 T	0.00	6.09	0.00
6864 - METAL GRINDING 6864 <i>1 ticket and 1 transaction</i>	10.66 T	0.00	10.66	0.00
ICES - 189 INDUSTRIAL / PLANT TRASH <i>4 tickets and 4 transactions</i>	24.80 T	0.00	24.80	0.00
ICHA - 188 INDUSTRIAL / PLANT TRASH <i>3 tickets and 3 transactions</i>	6.88 T	0.00	6.88	0.00
ICLE - 1548 I/C TOBACCO <i>4 tickets and 4 transactions</i>	10.60 T	0.00	10.60	0.00
ICSD - I/C SAPUTO DAIRY TRASH <i>13 tickets and 13 transactions</i>	70.57 T	0.00	70.57	0.00
ICTQ - 1660 IC General Trash <i>1 ticket and 1 transaction</i>	0.72 T	0.00	0.72	0.00
IN - INDUSTRIAL <i>2 tickets and 2 transactions</i>	22.92 T	0.00	22.92	0.00
IND - INDUSTRIAL <i>53 tickets and 53 transactions</i>		<u>0.00</u>	<u>255.26</u>	<u>0.00</u>

LEACH - LEACHATE**LEACH - LEACHATE***145 tickets and 145 transactions*

1,021,779.00 GAL 0.00 0.00 0.00

LEACH - LEACHATE*145 tickets and 145 transactions*

0.00

0.00

0.00**MISC - MISC CHARGES****DO - DIG OUT SERVICE***10 tickets and 10 transactions*

10.00 U 0.00 0.00 0.00

ICDO - I-C DIG OUT SERVICE*3 tickets and 3 transactions*

3.00 U 0.00 0.00 0.00

MBTI - MBI TIPPER CHARGE*116 tickets and 116 transactions*

116.00 U 0.00 0.00 0.00

MISC - MISC CHARGES**MBTP - I/C MBI TIPPER***48 tickets and 48 transactions*

48.00 U 0.00 0.00 0.00

MISC - MISC CHARGES*174 tickets and 177 transactions*

0.00

0.00

0.00**MSW - MUNICIPAL SOLID WASTE****ICAW - I/C Allegany Cty Waste***5 tickets and 5 transactions*

21.64 T 0.00 21.64 0.00

ICCP - MSW POTTER COUNTY*8 tickets and 8 transactions*

137.16 T 0.00 137.16 0.00

ICMS - I-C MSW*126 tickets and 126 transactions*

4,576.50 T 0.00 4,576.50 0.00

MS - MSW*364 tickets and 364 transactions*

8,819.16 T 0.00 8,819.16 0.00

MSW - MUNICIPAL SOLID WASTE*503 tickets and 503 transactions*

0.00

13,554.46

0.00**MX - MIXED C&D AND MSW****ICTR - I/C Mixed Waste TT***77 tickets and 77 transactions*

2,270.28 T 0.00 2,270.28 0.00

MX - MSW & MIXED TRASH*24 tickets and 24 transactions*

233.13 T 0.00 233.13 0.00

MX - MIXED C&D AND MSW*101 tickets and 101 transactions*

0.00	2,503.41	0.00
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SIM - INDUSTRIAL SOLIDIFICATION**4155 - NON-HAZ LIQUID 4155***6 tickets and 6 transactions*

84.78 T	0.00	84.78	0.00
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4286 - I/C NON HAZ LIQUIDS 4286*1 ticket and 1 transaction*

21.41 T	0.00	21.41	0.00
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4966 - OILY TANK BOTTOMS 4966*3 tickets and 3 transactions*

35.49 T	0.00	35.49	0.00
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6112 - OFF SPEC PROD W/LIQ 6112*7 tickets and 7 transactions*

66.85 T	0.00	66.85	0.00
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SIM - INDUSTRIAL SOLIDIFICATION**MSSL - INDUSTRIAL SOLIDIFICATION***6 tickets and 6 transactions*

89.77 T	0.00	89.77	0.00
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SIM - INDUSTRIAL SOLIDIFICATION*23 tickets and 23 transactions*

0.00	298.30	0.00
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SS - SEWAGE SLUDGE**ICOS - 582 OLEAN WWTP SLUDGE***3 tickets and 3 transactions*

45.45 T	0.00	45.45	0.00
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ICSL - I/C SLUDGE*146 tickets and 146 transactions*

5,105.30 T	0.00	5,105.30	0.00
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ICWN - 2021 I/C WWTP SLUDGE*1 ticket and 1 transaction*

16.12 T	0.00	16.12	0.00
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SL - SLUDGE*3 tickets and 3 transactions*

104.08 T	0.00	104.08	0.00
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VWSL - 331 WWTP SLUDGE*3 tickets and 3 transactions*

39.59 T	0.00	39.59	0.00
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SS - SEWAGE SLUDGE*156 tickets and 156 transactions*

0.00	5,310.54	0.00
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Report Grand Totals*1,228 tickets and 1,405 transactions*

0.00	27,199.21	0.00
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End of Report

TONNAGE FOR 2019

RpCatMat.rpt

Category: All

Hyland Facility Associates
Category / Material Report

Transactions from 01/01/2019 through 12/31/2019
 Inbound and Outbound Tickets
 Third Party and Intercompany Customers
 Recycle and Disposal Material
 Material Summary

	BillUnits	Cubic Yards	Tons	Est Tons
ASB - ASBESTOS				
BAFA - BAGGED FRIABLE ASBESTOS <i>46 tickets and 46 transactions</i>	274.01 T	0.00	274.01	0.00
BUFA - BULK FRIABLE ASBESTOS <i>244 tickets and 244 transactions</i>	6,647.52 T	0.00	6,647.52	0.00
FRAS - FRIABLE ASBESTOS WASTE <i>1 ticket and 1 transaction</i>	0.43 T	0.00	0.43	0.00
ICBA - I/C BAGGED FRIABLE ASBESTOS <i>28 tickets and 28 transactions</i>	191.52 T	0.00	191.52	0.00
ICFR - I-C FRIABLE ASBESTOS <i>5 tickets and 5 transactions</i>	50.95 T	0.00	50.95	0.00
ASB - ASBESTOS <i>324 tickets and 324 transactions</i>		0.00	7,164.43	0.00
BUD - BUD ADC				
3912 - I/C SANDBLAST GRIT 3912 <i>8 tickets and 8 transactions</i>	152.17 T	0.00	152.17	0.00
BCAS - BUD ASR / ADC <i>10 tickets and 10 transactions</i>	299.89 T	0.00	299.89	0.00

BDCS - BUD CONTAMINATED SOIL <i>56 tickets and 56 transactions</i>	1,185.28 T	0.00	1,185.28	0.00
CDAD - CONSTRUCTION DEBRIS (BUD ADC) <i>451 tickets and 451 transactions</i>	15,308.47 T	0.00	15,308.47	0.00
ICBD - I/C BUD ADC <i>5 tickets and 5 transactions</i>	56.23 T	0.00	56.23	0.00
UPAS - 1730 AUTO SHREDDER <i>752 tickets and 752 transactions</i>	20,949.15 T	0.00	20,949.15	0.00
BUD - BUD ADC <i>1,282 tickets and 1,282 transactions</i>		0.00	37,951.19	0.00
BUDSBA - BUD SOLIDIFICATION BULKING AGENT				
1730 - ASR BULKING AGENT 1730S <i>114 tickets and 114 transactions</i>	3,159.72 T	0.00	3,159.72	0.00
BDSL - BUD BULKING AGENT <i>18 tickets and 18 transactions</i>	574.31 T	0.00	574.31	0.00
BUDSBA - BUD SOLIDIFICATION BULKING AGENT <i>132 tickets and 132 transactions</i>		0.00	3,734.03	0.00
C&D - CONSTRUCTION DEBRIS				
ACCD - ALLEGANY CTY C&D <i>25 tickets and 25 transactions</i>	110.97 T	0.00	110.97	0.00
AS - NON FRIABLE C&D <i>2 tickets and 2 transactions</i>	7.08 T	0.00	7.08	0.00
CD - CONSTRUCTION DEBRIS <i>3,272 tickets and 3,272 transactions</i>	61,698.31 T	0.00	61,698.31	0.00
ICAS - I-CNON FRIABLE ASBESTOS WASTE <i>1 ticket and 1 transaction</i>	2.84 T	0.00	2.84	0.00
ICCD - I-C CONSTUCTION DEBRIS <i>165 tickets and 165 transactions</i>	606.54 T	0.00	606.54	0.00
C&D - CONSTRUCTION DEBRIS <i>3,465 tickets and 3,465 transactions</i>		0.00	62,425.74	0.00
CS - CONTAMINATED SOIL				
CS - CONTAMINATED SOIL <i>115 tickets and 115 transactions</i>	3,333.48 T	0.00	3,333.48	0.00

CS - CONTAMINATED SOIL*115 tickets and 115 transactions*

0.00

3,333.48

0.00

IND - INDUSTRIAL**4217 - NON-HAZ SOLIDS 4217***61 tickets and 61 transactions*

221.91 T

0.00

221.91

0.00

4376 - I/C PLANT TRASH 4376*1 ticket and 1 transaction*

7.77 T

0.00

7.77

0.00

4820 - I/C CHAT PLANT TRASH 4820*4 tickets and 4 transactions*

11.69 T

0.00

11.69

0.00

4867 - I/C SAWDUST 4867*13 tickets and 13 transactions*

58.51 T

0.00

58.51

0.00

6090 - I/C PLANT TRASH 6090*12 tickets and 12 transactions*

53.31 T

0.00

53.31

0.00

6091 - I/C UNUSED PRODUCT 6091*4 tickets and 4 transactions*

102.30 T

0.00

102.30

0.00

IND - INDUSTRIAL**6534 - I/C PLANT TRASH 6534***52 tickets and 52 transactions*

119.51 T

0.00

119.51

0.00

6535 - I/C PLANT TRASH 6535*26 tickets and 26 transactions*

78.27 T

0.00

78.27

0.00

6645 - MIXED PLANT TRASH 6645*113 tickets and 113 transactions*

720.63 T

0.00

720.63

0.00

6646 - MIXED PLANT TRASH 6646*9 tickets and 9 transactions*

47.65 T

0.00

47.65

0.00

6687 - I/C FOUNDRY SAND 6687*2 tickets and 2 transactions*

19.08 T

0.00

19.08

0.00

6849 - I/C USED OIL FILTERS 6849*1 ticket and 1 transaction*

1.39 T

0.00

1.39

0.00

6864 - METAL GRINDING 6864*3 tickets and 3 transactions*

33.41 T

0.00

33.41

0.00

ICCS - I-C CONTAMINATED SOIL*2 tickets and 2 transactions*

15.37 T

0.00

15.37

0.00

ICES - 189 INDUSTRIAL / PLANT TRASH*53 tickets and 53 transactions*

518.25 T

0.00

518.25

0.00

ICHA - 188 INDUSTRIAL / PLANT TRASH*49 tickets and 49 transactions*

154.97 T

0.00

154.97

0.00

ICIN - I-C INDUSTRIAL <i>32 tickets and 32 transactions</i>	187.14 T	0.00	187.14	0.00
ICLE - 1548 I/C TOBACCO <i>46 tickets and 46 transactions</i>	180.10 T	0.00	180.10	0.00
ICLV - I/C INDUSTRIAL WASTE <i>1 ticket and 1 transaction</i>	2.31 T	0.00	2.31	0.00
ICPO - 1830 POLYURANTHANE SCRAPS(185) <i>6 tickets and 6 transactions</i>	17.32 T	0.00	17.32	0.00
ICSD - I/C SAPUTO DAIRY TRASH <i>155 tickets and 155 transactions</i>	783.25 T	0.00	783.25	0.00
ICTP - 230 Plant Trash/Powder Paint <i>1 ticket and 1 transaction</i>	8.59 T	0.00	8.59	0.00
ICTQ - 1660 IC General Trash <i>7 tickets and 7 transactions</i>	10.48 T	0.00	10.48	0.00
IN - INDUSTRIAL <i>5 tickets and 5 transactions</i>	80.30 T	0.00	80.30	0.00
IND - INDUSTRIAL <i>658 tickets and 658 transactions</i>		<hr/> 0.00	<hr/> 3,433.51	<hr/> 0.00
LEACH - LEACHATE				
LEACH - LEACHATE <i>1,732 tickets and 1,732 transactions</i>	12,399,356.00 GAL	0.00	0.00	0.00
LEACH - LEACHATE <i>1,732 tickets and 1,732 transactions</i>		<hr/> 0.00	<hr/> 0.00	<hr/> 0.00
MISC - MISC CHARGES				
CO - CLEAN OUT SERVICE <i>10 tickets and 10 transactions</i>	10.00 U	0.00	0.00	0.00
AP - APPLIANCES <i>1 ticket and 1 transaction</i>	2.00 U	0.00	0.00	0.00
DO - DIG OUT SERVICE <i>192 tickets and 192 transactions</i>	193.00 U	0.00	0.00	0.00
ICCO - I/C CLEAN OUT <i>1 ticket and 1 transaction</i>	1.00 U	0.00	0.00	0.00
ICDO - I-C DIG OUT SERVICE <i>28 tickets and 28 transactions</i>	28.00 U	0.00	0.00	0.00
ICTI - CAR TIRE REGULAR <i>6 tickets and 6 transactions</i>	22.00 U	0.00	0.00	0.00

MBTI - MBI TIPPER CHARGE <i>3,089 tickets and 3,089 transactions</i>	3,089.00 U	0.00	0.00	0.00
MBTP - I/C MBI TIPPER <i>1,362 tickets and 1,362 transactions</i>	1,362.00 U	0.00	0.00	0.00
TI - CAR TIRES - REGULAR <i>27 tickets and 27 transactions</i>	88.00 U	0.00	0.00	0.00
TT - TRAILER TIRE <i>6 tickets and 6 transactions</i>	10.00 U	0.00	0.00	0.00
MISC - MISC CHARGES <i>4,610 tickets and 4,722 transactions</i>		0.00	0.00	0.00
MSW - MUNICIPAL SOLID WASTE				
ACMS - ALLEGANY CTY MSW <i>12 tickets and 12 transactions</i>	72.83 T	0.00	72.83	0.00
MSW - MUNICIPAL SOLID WASTE				
ICAW - I/C Allegany Cty Waste <i>77 tickets and 77 transactions</i>	290.98 T	0.00	290.98	0.00
ICCP - MSW POTTER COUNTY <i>392 tickets and 392 transactions</i>	6,548.50 T	0.00	6,548.50	0.00
ICMS - I-C MSW <i>1,735 tickets and 1,735 transactions</i>	61,409.33 T	0.00	61,409.33	0.00
MS - MSW <i>7,080 tickets and 7,080 transactions</i>	190,568.81 T	0.00	190,568.81	0.00
MSW - MUNICIPAL SOLID WASTE <i>9,296 tickets and 9,296 transactions</i>		0.00	258,890.45	0.00
MX - MIXED C&D AND MSW				
ICMX - I-C MSW & CD MIXED TRASH <i>4 tickets and 4 transactions</i>	5.72 T	0.00	5.72	0.00
ICTR - I/C Mixed Waste TT <i>1,600 tickets and 1,600 transactions</i>	45,457.85 T	0.00	45,457.85	0.00
MX - MSW & MIXED TRASH <i>283 tickets and 283 transactions</i>	2,639.76 T	0.00	2,639.76	0.00
MX - MIXED C&D AND MSW <i>1,887 tickets and 1,887 transactions</i>		0.00	48,103.33	0.00

SIM - INDUSTRIAL SOLIDIFICATION

4155 - NON-HAZ LIQUID 4155 <i>66 tickets and 66 transactions</i>	892.67 T	0.00	892.67	0.00
4286 - I/C NON HAZ LIQUIDS 4286 <i>11 tickets and 11 transactions</i>	238.70 T	0.00	238.70	0.00
4427 - NON-HAZ LIQUID 4427 <i>13 tickets and 13 transactions</i>	77.68 T	0.00	77.68	0.00
4966 - OILY TANK BOTTOMS 4966 <i>104 tickets and 104 transactions</i>	1,668.49 T	0.00	1,668.49	0.00
6112 - OFF SPEC PROD W/LIQ 6112 <i>9 tickets and 9 transactions</i>	89.22 T	0.00	89.22	0.00
6994 - I/C OFF SPEC FOOD 6994 <i>1 ticket and 1 transaction</i>	3.25 T	0.00	3.25	0.00

SIM - INDUSTRIAL SOLIDIFICATION

ICSO - I/C SOLIDIFICATION <i>1 ticket and 1 transaction</i>	6.32 T	0.00	6.32	0.00
MSSL - INDUSTRIAL SOLIDIFICATION <i>44 tickets and 44 transactions</i>	461.20 T	0.00	461.20	0.00

SIM - INDUSTRIAL SOLIDIFICATION*249 tickets and 249 transactions*

0.00	3,437.53	0.00
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SS - SEWAGE SLUDGE

6493 - WWTP SLUDGE 6493 <i>3 tickets and 3 transactions</i>	45.17 T	0.00	45.17	0.00
6805 - WWTP SLUDGE 6805 <i>4 tickets and 4 transactions</i>	69.15 T	0.00	69.15	0.00
ICOS - 582 OLEAN WWTP SLUDGE <i>102 tickets and 102 transactions</i>	1,655.60 T	0.00	1,655.60	0.00
ICSC - 244 SUFFOLK COUNTY SLUDGE <i>124 tickets and 124 transactions</i>	3,967.18 T	0.00	3,967.18	0.00
ICSL - I/C SLUDGE <i>2,186 tickets and 2,186 transactions</i>	70,598.14 T	0.00	70,598.14	0.00
ICWN - 2021 I/C WWTP SLUDGE <i>7 tickets and 7 transactions</i>	126.41 T	0.00	126.41	0.00
SL - SLUDGE <i>32 tickets and 32 transactions</i>	1,089.76 T	0.00	1,089.76	0.00

VWSL - 331 WWTP SLUDGE <i>47 tickets and 47 transactions</i>	650.80 T	0.00	650.80	0.00
SS - SEWAGE SLUDGE <i>2,505 tickets and 2,505 transactions</i>		0.00	78,202.21	0.00
TIRES - MISC CHARGES				
WT - WEIGHT CHARGE ONLY <i>1 ticket and 1 transaction</i>	1.00 U	0.00	0.00	0.00
HAFE - HANDLING FEE <i>4 tickets and 4 transactions</i>	4.00 U	0.00	0.00	0.00
TIRES - MISC CHARGES <i>5 tickets and 5 transactions</i>		0.00	0.00	0.00
<u>Report Grand Totals</u>		0.00	506,675.90	0.00
<i>21,646 tickets and 26,372 transactions</i>				

End of Report

ATTACHMENT 10 – ADC MATERIAL FOR 4TH QUARTER 2019

RpCatMat.rpt

Category: BUD

Hyland Facility Associates
Category / Material Report

Transactions from 10/01/2019 through 10/31/2019
Inbound and Outbound Tickets
Third Party and Intercompany Customers
Recycle and Disposal Material
Material Summary

	BillUnits	Cubic Yards	Tons	Est Tons
BUD - BUD ADC				
BDCS - BUD CONTAMINATED SOIL <i>6 tickets and 6 transactions</i>	140.02 T	0.00	140.02	0.00
CDAD - CONSTRUCTION DEBRIS (BUD ADC) <i>76 tickets and 76 transactions</i>	2,382.80 T	0.00	2,382.80	0.00
UPAS - 1730 AUTO SHREDDER <i>42 tickets and 42 transactions</i>	1,160.72 T	0.00	1,160.72	0.00
BUD - BUD ADC <i>124 tickets and 124 transactions</i>		<hr/> 0.00	<hr/> 3,683.54	<hr/> 0.00
<u>Report Grand Totals</u> <i>124 tickets and 124 transactions</i>		<hr/> <hr/> 0.00	<hr/> <hr/> 3,683.54	<hr/> <hr/> 0.00
End of Report				

RpCatMat.rpt

Category: BUD

Hyland Facility Associates
Category / Material Report

Transactions from 11/01/2019 through 11/30/2019
Inbound and Outbound Tickets
Third Party and Intercompany Customers
Recycle and Disposal Material
Material Summary

	BillUnits	Cubic Yards	Tons	Est Tons
BUD - BUD ADC				
CDAD - CONSTRUCTION DEBRIS (BUD ADC) <i>62 tickets and 62 transactions</i>	2,007.52 T	0.00	2,007.52	0.00
UPAS - 1730 AUTO SHREDDER <i>48 tickets and 48 transactions</i>	1,331.75 T	0.00	1,331.75	0.00
BUD - BUD ADC <i>110 tickets and 110 transactions</i>		0.00	3,339.27	0.00
<u>Report Grand Totals</u> <i>110 tickets and 110 transactions</i>		0.00	3,339.27	0.00

End of Report

RpCatMat.rpt

Category: BUD

Hyland Facility Associates
Category / Material Report

Transactions from 12/01/2019 through 12/31/2019
 Inbound and Outbound Tickets
 Third Party and Intercompany Customers
 Recycle and Disposal Material
 Material Summary

	BillUnits	Cubic Yards	Tons	Est Tons
BUD - BUD ADC				
CDAD - CONSTRUCTION DEBRIS (BUD ADC) <i>33 tickets and 33 transactions</i>	1,140.94 T	0.00	1,140.94	0.00
ICBD - I/C BUD ADC <i>1 ticket and 1 transaction</i>	9.26 T	0.00	9.26	0.00
UPAS - 1730 AUTO SHREDDER <i>59 tickets and 59 transactions</i>	1,720.29 T	0.00	1,720.29	0.00
BUD - BUD ADC <i>93 tickets and 93 transactions</i>		0.00	2,870.49	0.00
<u>Report Grand Totals</u> <i>93 tickets and 93 transactions</i>		0.00	2,870.49	0.00
End of Report				

ATTACHMENT 11 – BUD MATERIAL FOR 4TH QUARTER 2019

RpCatMat.rpt

Category: BUDRB

Hyland Facility Associates
Category / Material Report

Transactions from 10/01/2019 through 10/31/2019
Inbound and Outbound Tickets
Third Party and Intercompany Customers
Recycle and Disposal Material
Material Summary

BillUnits	Cubic Yards	Tons	Est Tons
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No data for the criteria entered

Report Grand Totals

0 tickets and 0 transactions

End of Report

RpCatMat.rpt

Category: BUDRB

Hyland Facility Associates
Category / Material Report

Transactions from 11/01/2019 through 11/30/2019
Inbound and Outbound Tickets
Third Party and Intercompany Customers
Recycle and Disposal Material
Material Summary

BillUnits	Cubic Yards	Tons	Est Tons
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No data for the criteria entered

Report Grand Totals

0 tickets and 0 transactions

End of Report

RpCatMat.rpt

Category: BUDRB

Hyland Facility Associates
Category / Material Report

Transactions from 12/01/2019 through 12/31/2019
Inbound and Outbound Tickets
Third Party and Intercompany Customers
Recycle and Disposal Material
Material Summary

BillUnits	Cubic Yards	Tons	Est Tons
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No data for the criteria entered

Report Grand Totals

0 tickets and 0 transactions

End of Report

ATTACHMENT 12 – BUD SOLIDIFICATION BULKING AGENT FOR 4TH QUARTER 2019

RpCatMat.rpt

Category: BUDSBA

Hyland Facility Associates
Category / Material Report

Transactions from 10/01/2019 through 10/31/2019
Inbound and Outbound Tickets
Third Party and Intercompany Customers
Recycle and Disposal Material
Material Summary

	BillUnits	Cubic Yards	Tons	Est Tons
BUDSBA - BUD SOLIDIFICATION BULKING AGENT				
1730 - ASR BULKING AGENT 1730S <i>8 tickets and 8 transactions</i>	222.47 T	0.00	222.47	0.00
BUDSBA - BUD SOLIDIFICATION BULKING AGENT <i>8 tickets and 8 transactions</i>		<hr/> 0.00	<hr/> 222.47	<hr/> 0.00
<u>Report Grand Totals</u> <i>8 tickets and 8 transactions</i>		<hr/> 0.00	<hr/> 222.47	<hr/> 0.00
				End of Report

RpCatMat.rpt

Category: BUDSBA

Hyland Facility Associates
Category / Material Report

Transactions from 11/01/2019 through 11/30/2019
Inbound and Outbound Tickets
Third Party and Intercompany Customers
Recycle and Disposal Material
Material Summary

	BillUnits	Cubic Yards	Tons	Est Tons
BUDSBA - BUD SOLIDIFICATION BULKING AGENT				
1730 - ASR BULKING AGENT 1730S <i>13 tickets and 13 transactions</i>	362.48 T	0.00	362.48	0.00
BUDSBA - BUD SOLIDIFICATION BULKING AGENT <i>13 tickets and 13 transactions</i>		<hr/> 0.00	<hr/> 362.48	<hr/> 0.00
<u>Report Grand Totals</u> <i>13 tickets and 13 transactions</i>		<hr/> 0.00	<hr/> 362.48	<hr/> 0.00
				End of Report

RpCatMat.rpt

Category: BUDSBA

Hyland Facility Associates

Category / Material Report

Transactions from 12/01/2019 through 12/31/2019
Inbound and Outbound Tickets
Third Party and Intercompany Customers
Recycle and Disposal Material
Material Summary

	BillUnits	Cubic Yards	Tons	Est Tons
BUDSBA - BUD SOLIDIFICATION BULKING AGENT				
1730 - ASR BULKING AGENT 1730S <i>12 tickets and 12 transactions</i>	330.37 T	0.00	330.37	0.00
BUDSBA - BUD SOLIDIFICATION BULKING AGENT <i>12 tickets and 12 transactions</i>		<u>0.00</u>	<u>330.37</u>	<u>0.00</u>
<u>Report Grand Totals</u> <i>12 tickets and 12 transactions</i>		<u>0.00</u>	<u>330.37</u>	<u>0.00</u>
				End of Report

ATTACHMENT 13 – LEACHATE TREATMENT FACILITIES



January 7, 2019

Ms. Michelle McCloskey
Hyland Landfill
6653 Herman Road
Angelica, New York 14709

RE: Leachate Disposal from
NYSDEC Facility Code: SW 02A17

Dear Ms. McCloskey:

The Hyland Landfill is authorized to bring landfill leachate for disposal to the Village of Westfield Water Pollution Control Facility in 2019, SPDES Permit #NY-0021334, in accordance with all applicable State and Federal Regulations.

Our facility is capable of accepting 100,000 gallons per day of leachate and has storage capacity which could be utilized in an emergency. It is expected that you will notify us 24 hours in advance of any deliveries of leachate. Please forward, to my attention, any current test results you have on your leachate. Our current rate for leachate is \$20 per thousand gallons.

Please call with any questions at 716-326-3932.

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew Thompson", is written over a horizontal line.

Andrew Thompson
Chief Operator
Village of Westfield WPCF

AGREEMENT

Made this 14 day of Jan, 2019, by and between Hyland Facilities Associates, having its principal office at P.O. Box 354 Angelica, New York 14709, hereafter called "Hyland", and the VILLAGE OF BOLIVAR, a municipal corporation in the County of Allegany, with village offices at 252 Main Street, Bolivar, New York, hereafter called "Village".

WITNESSETH:

WHEREAS, Hyland generates waste material which must be treated before it can be disposed of, and

WHEREAS, the Village of Bolivar waste water treatment plant has the capacity to treat waste, and

NOW<THEREFORE, in consideration of the covenants and promises hereinafter set forth, the parties hereto agree as follows:

1. The Village shall accept for treatment waste which is generated at Hyland and which is delivered, at Hyland's expense, to the Village's waste water treatment plant in Bolivar, New York.
2. Hyland shall notify the Village, or it's duly appointed agent, servant, or employee, by telephone the morning of the date of disposal, which disposal shall be at times mutually agreed to between Hyland and the operator at the waste water treatment plant. The number of gallons to be disposed of each day must be mutually agreed upon during the mandatory phone call.
3. Hyland agrees to dispose of only those amounts that are acceptable to the treatment plant operator and only waste that has been analyzed and approved. The dumping of any other type of waste or chemical would be in violation of this agreement.
4. Hyland agrees to perform all dumping directly into the manhole or tank designated by the plant operator, with Hyland being responsible for spillage on streets or other surfaces, or spattering on adjacent walls, with such responsibility to insure that should any spillage occur, it will be immediately cleaned up.
5. Hyland will insure that the rate of discharge is not in excess of the maximum designated flow of the manhole, tank or treatment process, and will regulate the discharge rate according to the directive of the plant operator.

6. Hyland guarantees that the waste when delivered to the plant will be in compliance with all standards and requirements established by statute law rule or regulation that applies to or affects the treatment of the waste in the plant. In this connection, Hyland shall transmit to the Village the results of all tests, which are relevant to the treatment of waste at a wastewater treatment plant, done annually at time of renewal.
7. Hyland shall pay the Village a tipping fee of \$.025 per gallon for each gallon delivered and accepted for treatment by the Village. Payment shall be made pursuant to an invoice prepared by the Village and submitted to Hyland.
8. Any invoices with regard to this contract shall be given to Hyland Facilities Associates, P.O. Box 354 Angelica, New York 14709 , or the Village of Bolivar Public Works Department, 252 Main Street, Bolivar, New York 14715.
9. The term of this agreement shall be deemed to have been in effect on and from Jan 14 2019 , and shall expire on Jan 31 2020 .
10. Either party may terminate this Agreement with a written notice of termination; such termination to take effect on the thirtieth (30th) calendar day from the date of mailing or delivery of such written notice from one party to the other.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be signed by their respective duly authorized officers.

HYLAND FACILITIES ASSOCIATES

VILLAGE OF BOLIVAR

BY:

Boris Krav
General Mgr Hyland

BY:

Stephanie MacDowell
Village Clerk/Treasurer

Village of Wellsville
Department of Public Works
200 Bolivar Road
Wellsville, NY 14895

Phone: 585-593-1850

FAX: 585-593-1856

December 28, 2018

Mr. Robert Kras
Hyland Facility
6635 Herdman Road
Angelica, NY 14709

RE: Leachate Disposal Agreement

Dear Mr. Kras:

This letter is to confirm that Hyland Facility may continue to dispose of leachate at our Wastewater Treatment Facility through the year 2019. The per-gallon rate structure will remain the same at \$ 0.03 per gallon through December 31, 2019.

The Village of Wellsville will not accept any material that will violate our TOG's, a copy of which can be obtained from the Village of Wellsville upon request.

Hyland will fully and promptly indemnify, save and hold harmless the Village of Wellsville and all of its officers, agents, and employees from and against any and all liability of any type whatsoever, including but not limited to damages, expenses, causes of action, lawsuits, claims, penalties, fines, assessments or judgments which may arise out of or occur in connection with the Village's acceptance of Hyland's Facility leachate at the Wellsville Wastewater Facility.

Please sign and return one copy of this letter to my attention. If you have any questions, please give me a call at (585) 596-1710.



William D. Whitfield
Director of Public Works



Robert Kras – Hyland Facility

WDW:dh

Cc: Mayor Randy Shayler
Mike Smith, Chief Operator

Steuben County
Department of Public Works

County Office Building
3 E. Pulteney Square
Bath, New York 14810

Vincent Spagnoletti
Commissioner

Phone (607) 664-2460
Fax (607) 664-2167

December 28, 2018

Michelle McCloskey
Casella Waste Systems, Inc.

**Re: Steuben County Leachate Pre-Treatment Facility
Authorization for Treatment**

Dear Ms. McCloskey:

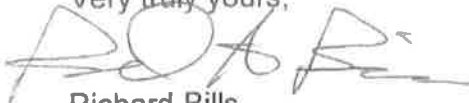
Casella Waste Systems, Inc. is authorized to deliver leachate for treatment at the Steuben County Leachate Pre-Treatment Facility from the following location:

Bath Transfer Station – Bath, NY
Hyland Facility – Angelica, NY
Chemung County Landfill, Chemung, NY

The disposal fee for this material is currently \$10.00/ton.

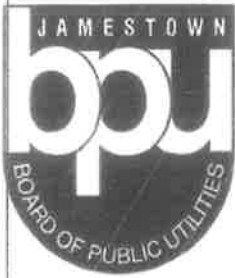
Please contact me if you have any questions or need additional information.

Very truly yours,



Richard Bills
Environmental Project Coordinator

Cc: S. Orcutt– Assistant Commissioner
B. Chaffee – Pretreatment Plant Operator



PO Box 700
Jamestown, NY 14702-0700
Phone (716) 661-1653
Fax (716) 665-2785

**ELECTRIC
DISTRICT HEAT
WATER
WASTEWATER
SOLID WASTE**

December 12, 2018

Hyland Facility Associates
6653 Herdman Road
Angelica, NY 14709

The Jamestown Board of Public Utilities will accept leachate generated at your facility. The rate for 2019 will be increasing to **\$0.0250** per gallon or **\$25.00** per 1,000 gallons. Please call this office if there are any anticipated changes to amounts being delivered.

We have limited our hours for deliveries from 7:00 AM to 6:00 PM, Monday through Friday, and 7:00 AM to noon on Saturday. We do not accept deliveries on Sunday.

Should you have any questions or concerns, please do not hesitate to contact this office.

Sincerely,

Keith Vanstrom
Chief Operator
Jamestown WWTP

**Keith Vanstrom
Chief Operator
Phone (716) 661-1653**

TOWN OF CANEADEA
DEPARTMENT OF PUBLIC WORKS
PO BOX 596
CANEADEA, NEW YORK 14717
DAVID STENZEL – SUPERINTENDENT
(585) 567-8410 Office
(585) 314-2728 Cell

10 January 2019

Mr. Robert Kras
Hyland Facility
6635 Herdman Road
Angelica, NY 14709

RE: Leachate Disposal Agreement

Dear Mr. Kras;

This letter is to confirm that Hyland Facility may dispose of leachate at our Wastewater Treatment Facility through the year 2019. The per-gallon rate structure will remain the same at \$0.025 per gallon through December 31, 2019.

The Town of Caneadea will not accept any material that will violate our TOG's, a copy of which can be obtained from the town upon request.

Hyland will fully and promptly indemnify, save and hold harmless the Town of Caneadea and all its officers, agents and employees from and against any and all liability of any type whatsoever, including but not limited to damages, expenses, causes of action, lawsuits, claims, penalties, fines, assessments or judgements which may arise out of or occur with the Town's acceptance of Hyland's Facility leachate at the Caneadea Wastewater Facility.

Please sign and return one copy of this letter to my attention. If you have any questions, please feel free to call me at (585)567-8410.



David Stenzel
Public Works Superintendent



Robert Kras
Hyland Facility

AGREEMENT

Made this 22 day of August, 2018, by and between Casella Waste Systems, Inc., 6653 Herdman Road, Angelica, New York, 14709, hereafter called "Casella", and the Village of Belmont, a municipal corporation in the County of Allegany, with village offices at 1 Schuyler Street, Belmont, New York, 14813, hereafter called the "Village".

WITNESSETH:

WHEREAS, Casella's Highland Facility Landfill generates leachate which must be treated before it can be disposed of, and

WHEREAS, the Village of Belmont wastewater treatment plant has the capability to treat leachate,

NOW, THEREFORE, in consideration of the covenants and promises hereinafter set forth, the parties hereto agree as follows:

1. The Village shall accept for treatment leachate, which is generated at the Hyland Facility Landfill and which is delivered, at Casella's expense, to the Village's wastewater treatment plant.
2. Casella shall negotiate with the Village, or its duly appointed agent, servant, or employee, a schedule for delivery of leachate for disposal, which disposal shall be at times mutually agreed between Casella and the operator at the wastewater treatment plant. The Village may temporarily suspend the receipt of leachate at any time due to issues with plant operation, low flow, etc.
3. Casella agrees to dispose of only those amounts that are acceptable to the treatment plant operator. The parties agree that a target of three loads per week has been set but is subject to change based on the Treatment Plants ability to properly treat the leachate. Casella will have first right of refusal should the Village decide to accept more leachate into the treatment facility.
4. Casella agrees to perform all dumping directly into the facility designated by the plant operator, with Casella being responsible for spillage on streets or other surfaces, or splattering on the adjacent walls, with such responsibility to insure that should any such spillage or splattering occur, it will be immediately cleaned up.
5. Casella will insure that the rate of discharge is not in excess of the maximum designed flow of the treatment process, and will regulate the discharge rate according to the directive of the plant operator.

6. Casella guarantees that the leachate when delivered to the plant will be in compliance with all standards and requirements established by statute, law, rule or regulation that applies to or affects the treatment of the leachate in the plant. In this connection, Casella shall transmit to the Village the results of all tests, which are relevant to the treatment of leachate at a wastewater treatment plant, done in their testing sequence as they become available.
7. Each vehicle loaded with leachate for delivery at the plant shall be weighed by Casella at the Hyland Landfill before delivery. Thereafter, Casella shall prepare a weight ticket containing: (1) the gross weight, tare weight and net weight (payload) of vehicle; (2) the date and time of the weighing which shall also be the date of the delivery of the leachate; (3) the vehicle number, and (4) the name of the transporter. The weight ticket or a true copy thereof shall be given by the transporter to the plant operator on the date of such delivery.
8. The net weight of the leachate, as shown on the weight ticket, shall be the basis for determining the number of gallons accepted for treatment by the Village. The formula for such basis shall be the net weight of the leachate divided by 8.3 pounds which is the weight of one gallon.
9. Casella shall pay the Village a tipping fee of three and three tenths cents (\$.033) per gallon of leachate delivered and accepted for treatment at the plant. In addition Casella shall reimburse the Village any cost related to testing for acceptance of the leachate. Payment shall be made pursuant to an invoice prepared by the Village and submitted to Casella. Invoices and payments will be done on a monthly basis.
10. Any notices with regard to this contract shall be given to (Name, Title and Address), or to the Village of Belmont Mayor, or his duly authorized representative, 1 Schuyler Street, Belmont, New York 14813.
11. The term of this Agreement shall be October 1, 2018, and shall expire December 31, 2020.
12. Either party may terminate this Agreement with a written notice of termination; such termination to take effect on the thirtieth (30th) calendar day from the date of mailing or delivery of such written notice from one party to the other.

IN WITNESS WHEREOF, the parties hereto have affixed their seals hereto and caused these presents to be signed by their respective duly authorized officers pursuant to a resolution of the Casella Board duly adopted on the 22 day of AUGUST, 2018, and pursuant to a resolution of the Village of Belmont Board duly adopted on the 13th day of August, 2018.

Village of Belmont

By: TE Schneider
Mayor

Attest:

By: [Signature]
Village Clerk

Casella Waste Systems, Inc.

By: [Signature]
Bob Kras - General Manager

Attest:

By: Rose Bartlett
Rose Bartlett - Staff Accountant

ATTACHMENT 14 – LEACHATE HAULERS/BACKUP LEACHATE HAULERS

MAYBEE ENTERPRISES INC

5044 RT 244 PO BOX 26 BELMONT NY 14813

585-268-5384/FAX 585-268-5385

MaybeeEnterprises5384@gmail.com

2020 LEACHATE QUOTE

BASED ON 7000 GALLONS PER LOAD

BATH \$325

BELMONT \$175

BOLIVAR \$230

FRIENDSHIP \$195

HOUGHTON \$215

JAMESTOWN \$395

WELLSVILLE \$215

WESTFIELD \$495

Please note: This quote is based on \$3.10 or less per gallon diesel fuel price. There will be a fuel surcharge if diesel fuel goes above and beyond \$3.35/gallon per the U.S. Energy Information Administration(eia).

9/26/2019

Kaitlyn Murray

From: Joshua Haley <Joshua.Haley@casella.com>
Sent: Wednesday, January 15, 2020 10:34 AM
To: Kaitlyn Murray
Subject: M&T Trucking Rates

Kaitlyn,

Below are the M&T Trucking Rates

Josh Haley
Operations Manager
Casella Waste Systems, Inc.

6653 Herdman Rd Angelica, NY 14709
p. 585-268-1130 | f. 585-466-3206 | c. 716-560-7916 VOIP. 1130

Learn more at casella.com

-----Original Message-----

From: Dave Monte <dispatch@mandttrucking.com>
Sent: Monday, October 7, 2019 9:49 AM
To: Joshua Haley <Joshua.Haley@casella.com>
Subject: rates

Rates:

Hyland to Caneadea 0.027

Hyland to Wellsville 0.027

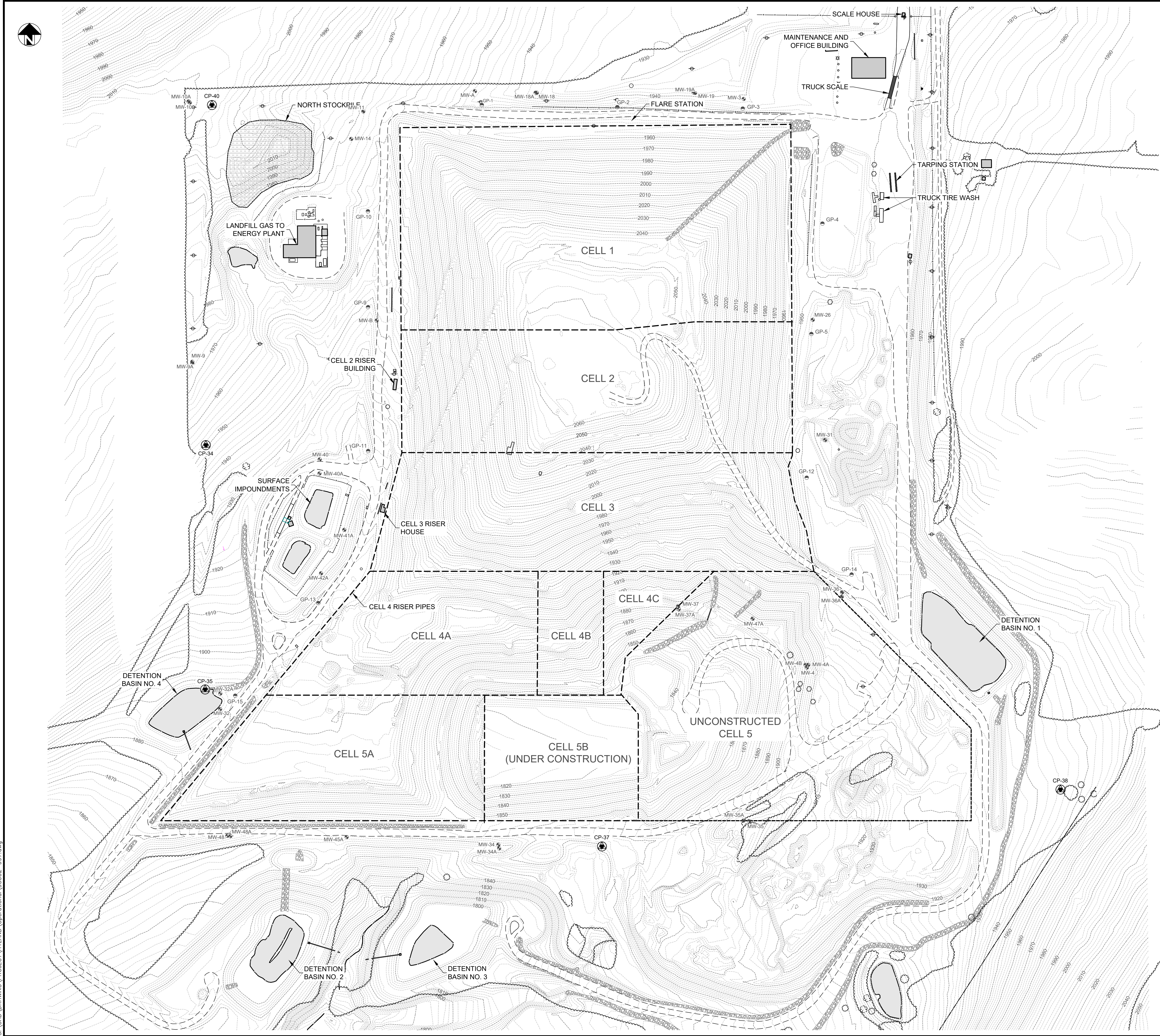
Hyland to Jamestown .0.49

To be effective November 1, 2019

Thanks

CONFIDENTIALITY NOTICE The information contained in this communication is confidential, may constitute inside information, may be attorney-client privileged and is intended only for the use of the named recipient. If the reader of this e-mail message is not the intended recipient, or the employee or agent responsible for delivery of the message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is prohibited. If you have received this e-mail in error, please notify the sender immediately by telephone at +1 585-268-1130.

ATTACHMENT 15 – 2019 TOPOGRAPHIC MAP



LEGEND

- EXISTING GROUND CONTOURS (SEE NOTE 1)
- PROPERTY LINE
- STREAM / CREEK
- BUILDING
- - - - - CONSTRUCTED LANDFILL LIMIT
- - - - - HAUL ROAD
- DETENTION POND / WATER
- TREELINE

NOTE:
1. Existing contours compiled by Quantum Spatial using photogrammetric methods from aerial photography dated June 8, 2019.

AIRSPACE SUMMARY TABLE

DESIGNATION	VOLUME (cy)
PERMITTED AIRSPACE ①	14,169,300
AIRSPACE USED ②	7,533,950
AIRSPACE REMAINING	6,635,350

AIRSPACE SUMMARY TABLE NOTES:
1. Total permitted airspace based on waste capacity of Cells 1 through 5.
2. Airspace used based on volume between the record top of leachate collection layer of Cells 1 through 5A and the June 8, 2019 ground contours.

SOIL BALANCE TABLE

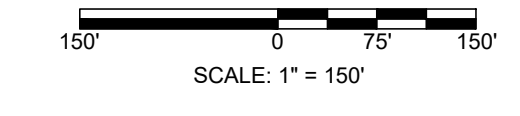
SOIL COMPONENT	QUANTITY (cy)
SOILS REQUIRED	
DAILY COVER / INTERMEDIATE COVER ①	1,161,186
FINAL COVER ②	321,000
LINER MATERIAL ③	58,483
TOTAL REQUIRED	1,540,669
SOILS AVAILABLE	
ON-SITE SOILS ④	1,559,068
15% BUD ⑤	545,573
TOTAL AVAILABLE	2,104,641
SOIL BALANCE ⑥	563,972

SOIL BALANCE TABLE NOTES:
1. Daily cover / intermediate cover based on 17.5% of the remaining airspace. The 17.5% is based on the Operation and Maintenance Manual (O&M Manual) prepared by Sanborn, Head Engineering, P.C. (SHPC) dated March 2006.
2. Final cover requirement based on assuming 24 inches of barrier protection soil and 6 inches of topsoil.
3. Liner material requirement based on the quantity of material required to construct remainder of Cell 5.
4. On-site soils based on available material between the June 8, 2019 ground contours and permitted base grades for Cell 5, the north Gas Plant stockpile, and the borrow areas south of Cell 5. This does not include any available soils located to the east of Cells 1 & 2.
5. Alternate Daily Cover (ADC) soils based on 15% of the remaining waste tonnage. ADC soils estimated based on an airspace utilization factor of 0.74 ton/cy and an ADC unit weight of 100 pcf.
6. Soil balance based on the difference between required and available soils.

SITE LIFE TABLE

DESIGNATION	SITE LIFE (YEARS)
CELLS 1-5	10.6

TABLE NOTES:
1. Site life based on remaining airspace as of June 8, 2019. An airspace utilization factor of 0.74 tons/cy (average AUF (excluding ADC) through June 8, 2019) and waste receipts of 465,000 tons/year.



NOTE:
UNAUTHORIZED ALTERATION OR ADDITION TO ANY SURVEY, DRAWING, DESIGN, SPECIFICATION, PLAN, OR REPORT IS A VIOLATION OF SECTION 7209 PROVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

REV 1	REV 2	REV 3	REV 4	REV 5	REV 6
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NEW YORK

HYLAND FACILITY - JUNE 8, 2019 SITE CONDITIONS PLAN

ALLEGANY COUNTY

DRAWN BY: C.R.G.
DESIGNED BY: D.E.W.
CHECKED BY: S.W.L.
SCALE: 1" = 150'
DATE: JANUARY 2020
JOB NO. 93-002
SHEET 1
DWG. NO. 93002-997
REVISION NUMBER - 0

ATTACHMENT 16 – SUMMARY OF LEACHATE BREAKOUT INSPECTIONS

Attachment 16 - Summary of Leachate Breakout Inspections

Date	# of Breakouts	Location	Action
1/2/2019	1	West slope of Cell 4A	Excavated/installed pipes/covered/tracked
1/7/2019	1	Northeast slope of Cell 4B	Excavated/installed pipes/covered/tracked
1/15/2019	2	Southeast slope of Cell 4B and west slope of Cell 4C	Excavated/installed pipes/covered/tracked
1/16/2019	1	Southwest slope of Cell 4C	Excavated/installed pipes/covered/tracked
3/13/2019	2	South slope of Cell 4A	Excavated/drained/covered/tracked
3/14/2019	4	South slope of Cell 4A and west slope of Cell 4B	Excavated/drained/covered/tracked
3/19/2019	1	Southeast slope of Cell 4C	Excavated/installed pipes/recovered
3/20/2019	1	East slope of Cell 5A	Excavated/installed pipes/recovered
3/21/2019	1	Northeast slope of Cell 5A	Excavated/installed pipes/covered/tracked
4/2/2019	1	Northeast slope of Cell 5A	Excavated/drained/covered/tracked
4/9/2019	1	South slope of Cell 4A	Excavated/drained/covered/tracked
4/10/2019	1	South slope of Cell 4A	Excavated/drained/covered/tracked
4/12/2019	1	Southeast slope of Cell 4A	Excavated/drained/covered/tracked
4/18/2019	2	East slope of Cell 5A	Excavated/installed pipes/covered/tracked
4/23/2019	1	Northeast slope of Cell 5A	Excavated and recovered
4/29/2019	1	Northeast slope of Cell 5A	Excavated and recovered
5/16/2019	1	Northwest slope of Cell 5A	Excavated/recovered/tracked
5/17/2019	5	East slope of Cell 5A, southeast slope of Cell 4A, and northeast slope of Cell 4B	Excavated/recovered/tracked
5/22/2019	1	Northeast slope of Cell 5A	Excavated/recovered/tracked
5/29/2019	1	Southeast slope of Cell 4A	Excavated/installed pipes/covered/tracked
6/5/2019	3	East slope of Cell 5A and southeast slope of Cell 4A	Excavated/installed pipes/covered/tracked
6/7/2019	3	Southeast slope of Cell 4A and southwest slope of Cell 4B	Excavated/drained/covered/tracked
6/11/2019	1	Southeast slope of Cell 4A	Excavated/drained/covered/tracked
6/17/2019	1	Southeast slope of Cell 4A	Excavated/recovered/tracked
6/19/2019	1	Southeast slope of Cell 4A	Excavated/drained/covered/tracked
6/24/2019	3	Southeast slope of Cell 4A and east slope of Cell 5A	Excavated/drained/covered/tracked
6/26/2019	1	Inside slope of Cell 5A	Excavated/recovered/tracked
7/1/2019	1	Northeast slope of Cell 5A	Excavated/recovered/tracked
7/5/2019	1	North slope of Cell 5A	Excavated/installed pipes/covered/tracked
7/8/2019	2	Northeast slope of Cell 5A	Excavated/drained/covered
7/9/2019	1	Northeast slope of Cell 5A	Excavated/drained/covered
7/25/2019	1	Northeast slope of Cell 5A	Excavated/drained/covered
7/26/2019	1	Northeast slope of Cell 5A	Excavated/drained/covered
8/13/2019	1	Northeast slope of Cell 5A	Excavated/drained/covered
11/6/2019	1	Side slope between Cells 4A and 4B	Excavated/drained/covered
12/11/2019	2	Northeast slope of Cell 5A	Excavated/drained/covered
12/26/2019	2	Northeast slope of Cell 5A and northwest slope of Cell 5B	Excavated/drained/covered
Total	56		

ATTACHMENT 17 – PRO-CONTROL EVALUATION

Pro-Control Quarterly System Integrity Evaluation

Date: 12/19/19

Year and Quarter:

2019 4th Quarter

Individual Completing the Evaluation (2 minimum):

Josh Haley Greg Thomas

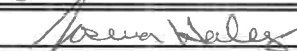

Identify, if any, issues remaining since last quarterly evaluation:

None

List all individuals set to receive an alarm message when conditions warrant:

Name	Title / Position	e-mail address
Josh Haley	Site Manager	Joshua.Haley@casella.com
Greg Thomas	Env. Technician	Gregory.Thomas@casella.com
Jessica Ireland	Scale Attendant	Jessica.Ireland@casella.com
Mike Alderton	Engineer	Mike.Alderton@southcoast.com

Sign-Off (signature required for individuals completing the evaluation and those on the alarm message system verifying receipt of a system alarm via e-mail)

Name	Signature	Date
Josh Haley		12/19/19
Greg Thomas		12/09/19

Date: 12/19/19

Time: 1:30 PM

Individuals Completing Evaluation: Josh Huley Greg Thomas

CELL 1&2 CONTROL PANEL

Task No.	Task Description	Cell Designation					
		Cell 1 Primary	Cell 2 Primary	Cell 1 A/B Secondary	Cell 1 C/D Secondary	Cell 2 E/F Secondary	Cell 2 G/H Secondary
Procontrol Software Settings (Office)							
1	"Pump-On" High Level Liquid Level (inches)	20.1	17.4	20.1	20.1	20.1	20.1
2	"Pump-Off" Low Liquid Level (inches)	9.7	12.9	8.4	7.1	18.0	17.0
3	"High-High" Level Alarm Set-Point (inches)	22.0	21.4	22.0	22.0	22.0	22.0
4	"Low-Low" Level Alarm Set-Point (inches)	4.0	3.0	3.9	4.5	3.0	3.0
5	Sump Liquid Level (inches) - Read at same time as Task 7	14.6	14.0	8.9	8.8	16.9	17.0
6	Cumulative Gallons Pumped (Gallons) - Read at same time as Task 9	30,152,278	42,208,195	630,109	92,078	324,939	197,694
Control-Panel Readout (Field)							
7	Sump Liquid Level (inches)	14.6	14.0	8.9	8.8	16.9	17.0
8	Does Task 7 match Task 5? (Y/N)	Y	Y	Y	Y	Y	Y
9	Cumulative Gallons Readout (gallons)	17,674,000	42,421,100	654,544	83,143	324,202	175,337
10	Does Task 9 match Task 6? (Y/N)	N	N	N	N	N	N
11	Push the Pump Inhibit Button. Do any lights stay on? If so describe.	N	N	N	N	N	N
Active Pump (Manually)							
12	Control Panel Sump Level Readout Following Pumping (inches)	9.7	12.9	8.4	7.1	18.0	17.0
13	Does Task 12 match Task 2? (Y/N)	Y	Y	Y	Y	Y	Y
14	Cumulative Gallons Readout (gallons)	30,152,334	42,208,228	630,114	92,101	324,940	197,695
15	Gallons Pumped (Task No. 14 - Task 9) - gallons	56	33	5	23	1	1
Activate High-High Level Alarm							
16	Adjust High-High Level to Activate Alarm (inches)	13.9	16.0	8.0	7.0	16.8	16.8
17	Light Activated? (Y/N)	Y	Y	Y	Y	Y	Y
18	e-mail confirmation (yes or no) -Attach copy of e-mail from all recipients	N	N	N	N	N	N
Activate Low-Low Level Alarm							
19	Adjust Low-Low Level to Activate Alarm (inches)	14.3	16.5	8.5	7.2	17.0	17.0
20	Light Activated? (Y/N)	Y	Y	Y	Y	Y	Y
21	e-mail confirmation (yes or no) -Attach copy of e-mail from all recipients	N	N	N	N	N	N
22	Follow Up Activities (yes or no), if yes list below	N	N	N	N	N	N

-Flows will not match unless there has never been flow meter issue

Follow Up Activities:

Emails cannot send when connected to Pro-Control To Complete Evaluation

Date: 12/9/19

Time: 3:30PM

Individuals Completing Evaluation: Josh Haley Greg Thomas

CELL 3,4&5 CONTROL PANEL

Task No.	Task Description	Cell Designation					
		Cell 3 Primary	Cell 3 Secondary	Cell 4 Primary	Cell 4 Secondary	Cell 5 Primary	Cell 5 A/B Secondary
	Procontrol Software Settings (Office)						
1	"Pump-On" High Level Liquid Level (inches)	21.0	19.4	20.1	20.1	20.1	20.1
2	"Pump-Off" Low Liquid Level (inches)	5.0	10.3	9.0	7.8	7.5	11.6
3	"High-High" Level Alarm Set-Point (inches)	3.0 22.0	23.0	22.0	22.0	22.0	22.0
4	"Low-Low" Level Alarm Set-Point (inches)	3.0	3.9	4.0	3.0	3.0	3.0
5	Sump Liquid Level (inches) - Read at same time as Task 7	19.1	18.1	16.9	15.3	9.7	20.1
6	Cumulative Gallons Pumped (Gallons) - Read at same time as Task 9	51,962.039	8,039,927	34,760,898	364,796	4,376,579	59,662
	Control-Panel Readout (Field)						
7	Sump Liquid Level (inches)	19.1	18.1	16.9	15.3	9.7	20.1
8	Does Task 7 match Task 5? (Y/N)	Y	Y	Y	Y	Y	Y
9	Cumulative Gallons Readout (gallons)	9162171	277184	424080	27932	598135	91646
10	Does Task 9 match Task 6? (Y/N)	N	N	N	N	N	N
11	Push the Pump Inhibit Button. Do any lights stay on? If so describe.	N	N	N	N	N	N
	Active Pump (Manually)						
12	Control Panel Sump Level Readout Following Pumping (inches)	5.0	10.3	9.0	7.8	7.5	11.6
13	Does Task 12 match Task 2? (Y/N)	Y	Y	Y	Y	Y	Y
14	Cumulative Gallons Readout (gallons)	51,962.054	8,039,994	34,761,078	364,823	4,376,610	60,083
15	Gallons Pumped (Task No. 14 - Task 9) - gallons	15	67	80	27	31	421
	Activate High-High Level Alarm						
16	Adjust High-High Level to Activate Alarm (inches)	8.3	9.9	9.1	7.7	7.4	11.5
17	Light Activated? (Y/N)	Y	Y	Y	Y	Y	Y
18	e-mail confirmation (yes or no) -Attach copy of e-mail from all recipients	N	N	N	N	N	N
	Activate Low-Low Level Alarm						
19	Adjust Low-Low Level to Activate Alarm (inches)	5.1	10.5	9.3	7.9	7.7	11.8
20	Light Activated? (Y/N)	Y	Y	Y	Y	Y	Y
21	e-mail confirmation (yes or no) -Attach copy of e-mail from all recipients	N	N	N	N	N	N
22	Follow Up Activities (yes or no), if yes list below	N	N	N	N	N	N

Follow Up Activities:

Date: 12/19/19

Time: 4:00 PM

Individuals Completing Evaluation: Josh Haley Greg Marney

SURFACE IMPOUNDMENT CONTROL PANEL

Task No.	Task Description	Surface Impoundment Designation			
		Bay 1 Primary	Bay 1 Secondary	Bay 2 Primary	Bay 2 Secondary
	Procontrol Software Settings (Office)				
1	"Pump-On" High Level Liquid Level (inches)	N/A	18.0 18.0	N/A	11.0 11.0
2	"Pump-Off" Low Liquid Level (inches)	N/A	17.0 17.0	N/A	10.0 10.0
3	"High-High" Level Alarm Set-Point (inches)	11.0	22.0	11.0	22.0
4	"Low-Low" Level Alarm Set-Point (inches)	0.5	3.0	0.5	3.0
5	Sump Liquid Level (inches) - Read at same time as Task 7	5.5	4.4	6.2	9.9
6	Cumulative Gallons Pumped (Gallons) - Read at same time as Task 9	191896	8572121	135596550	4,362,809
	Control-Panel Readout (Field)				
7	Sump Liquid Level (inches)	5.5	4.4	6.2	9.9
8	Does Task 7 match Task 5? (Y/N)	Y	Y	Y	Y
9	Cumulative Gallons Readout (gallons)	191896	80104	191896	15909
10	Does Task 9 match Task 6? (Y/N)	N	N	N	N
11	Push the Pump Inhibit Button. Do any lights stay on? If so describe.	N	N	N	N
	Active Pump (Manually) - Leachate Hauling Truck will be required or transferred from one Bay to the other Bay				
12	Control Panel Sump Level Readout Following Pumping (inches)	N/A - Pump a minimum of 1000 gallons	17	N/A - Pump a minimum of 1000 gallons	10
13	Does Task 12 match Task 2? (Y/N)	Y	Y	Y	Y
14	Cumulative Gallons Readout (gallons)	135596550	8,572,124	135596550 + 355 135,602,503	4,362,881
15	Gallons Pumped (Task No. 14 - Task 9) - gallons	1,021	3	6,974	12
	Activate High-High Level Alarm				
16	Adjust High-High Level to Activate Alarm (inches)	5.4	4.3	6.1	9.8
17	Light Activated? (Y/N)	Y	Y	Y	Y
18	e-mail confirmation (yes or no) -Attach copy of e-mail from all recipients	N	N	N	N
	Activate Low-Low Level Alarm				
19	Adjust Low-Low Level to Activate Alarm (inches)	5.0	4.5	6.3	10.0
20	Light Activated? (Y/N)	Y	Y	Y	Y
21	e-mail confirmation (yes or no) -Attach copy of e-mail from all recipients	N	N	N	N
22	Follow Up Activities (yes or no), if yes list below	N	N	N	N
23	Surface Impoundment Capacity Test- Does the system shut down when High-High Level is Activated? (Y/N)	Y	N/A	Y	N/A

Follow Up Activities:

ATTACHMENT 18 – RADIATION MONITORING SUMMARY TABLE

Attachment 18 - Radiaton Monitoring Summary Table

Incident Number	Received		Hauler	Origin	Truck Number	Reading	Disposal Status	Removed	
	Date	Time						Date	Time
	1/15/19	12:36pm	MR Bults Inc.	Rockland	2264	9.9 kcps	Material was disposed in landfill after radiation survey identified material as I-131 (medical isotope) and approval received via email from NYSDEC (Thomas Papura) on 1/16/19.	NA	NA
	2/20/19	11:35am	M.B.I.	Rockland	2331	20.2 kcps	Material was disposed in landfill after radiation survey identified material as Lu-177 (medical isotope) and approval received via email from NYSDEC (Thomas Papura) on 2/21/19.	NA	NA
	4/23/19	11:00am	Morgan's Waste	Steuben	114	12.6 kcps	Material was disposed in landfill after radiation survey identified material as I-131 (medical isotope) and approval received via email from NYSDEC (Thomas Papura) on 4/24/19.	NA	NA
	5/22/19	12:12pm	LJ Firewood	City Carting and Recycling	6	11.3 kcps	Material was disposed in landfill after radiation survey identified material as I-131 (medical isotope) and approval received via email from NYSDEC (Thomas Papura) on 5/23/19.	NA	NA

ATTACHMENT 19 – GROUNDWATER SUPPRESSION SYSTEM FLOW MEASUREMENTS

Hyland Landfill Groundwater Suppression System Flows Cell 3

Date	Flow (GPM)
1/4/2019	2.70
1/11/2019	2.54
1/18/2019	2.43
1/25/2019	2.38
2/1/2019	2.38
2/8/2019	2.88
2/15/2019	2.54
2/22/2019	2.40
3/1/2019	2.14
3/8/2019	2.22
3/15/2019	2.51
3/22/2019	2.00
3/29/2019	2.50
4/5/2019	1.50
4/12/2019	2.75
4/19/2019	2.00
4/26/2019	2.22
5/3/2019	2.50
5/10/2019	1.50
5/17/2019	2.70
5/24/2019	2.70
5/31/2019	2.60
6/7/2019	2.70
6/13/2019	3.49
6/21/2019	2.40
6/28/2019	2.11
7/5/2019	2.11
7/12/2019	1.43
7/19/2019	2.11
7/26/2019	1.59
8/2/2019	1.80
8/9/2019	1.59
8/16/2019	1.32
8/23/2019	1.32
8/30/2019	1.32
9/7/2019	1.58
9/13/2019	1.56
9/20/2019	1.56
9/27/2019	1.56
10/3/2019	1.59
10/11/2019	1.56
10/18/2019	0.58
10/25/2019	1.56
11/2/2019	0.58
11/9/2019	1.56
11/15/2019	1.58
11/20/2019	1.26
11/27/2019	1.24
12/4/2019	1.31
12/11/2019	1.58
12/19/2019	1.32
12/26/2019	1.32

Hyland Landfill Groundwater Suppression System Flows Cell 4

Date	Flow (GPM)
1/4/2019	0.030
1/11/2019	0.050
1/18/2019	0.030
1/25/2019	0.030
2/1/2019	0.000
2/8/2019	0.080
2/15/2019	0.050
2/22/2019	0.040
3/1/2019	0.050
3/8/2019	0.040
3/15/2019	0.030
3/22/2019	0.080
3/29/2019	0.050
4/5/2019	0.030
4/12/2019	0.050
4/19/2019	0.050
4/26/2019	0.500
5/3/2019	0.050
5/10/2019	0.500
5/17/2019	0.060
5/24/2019	0.060
5/31/2019	0.060
6/7/2019	0.060
6/14/2019	0.080
6/21/2019	0.070
6/28/2019	0.030
7/5/2019	0.026
7/12/2019	0.026
7/19/2019	0.013
7/26/2019	0.013
8/2/2019	0.005
8/9/2019	0.004
8/16/2019	0.026
8/23/2019	0.026
8/30/2019	0.026
9/7/2019	0.019
9/13/2019	0.013
9/20/2019	0.013
9/27/2019	0.013
10/4/2019	0.019
10/11/2019	0.013
10/18/2019	0.013
10/25/2019	0.006
11/1/2019	0.006
11/8/2019	0.006
11/15/2019	0.005
11/20/2019	0.005
11/27/2019	0.012
12/4/2019	0.008
12/11/2019	0.013
12/19/2019	0.013
12/26/2019	0.007

Hyland Landfill Groundwater Suppression System Flows Cell 5

Date	Flow (GPM)
1/4/2019	0.00
1/11/2019	0.05
1/18/2019	0.00
1/25/2019	0.00
2/1/2019	0.00
2/8/2019	0.08
2/15/2019	0.00
2/22/2019	0.03
3/1/2019	0.37
3/8/2019	0.00
3/15/2019	0.15
3/22/2019	0.05
3/29/2019	0.15
4/5/2019	0.07
4/12/2019	0.15
4/19/2019	0.50
4/26/2019	0.50
5/3/2019	0.50
5/10/2019	0.50
5/17/2019	0.05
5/24/2019	7.60
5/31/2019	15.53
6/7/2019	15.90
6/14/2019	25.36
6/21/2019	12.90
6/28/2019	15.85
7/5/2019	15.85
7/12/2019	15.85
7/19/2019	15.85
7/26/2019	15.85
8/2/2019	15.85
8/9/2019	15.85
8/16/2019	15.85
8/23/2019	15.85
8/30/2019	15.85
9/6/2019	15.85
9/13/2019	15.85
9/20/2019	15.85
9/27/2019	15.85
10/4/2019	15.85
10/11/2019	15.85
10/18/2019	15.85
10/25/2019	15.85
11/1/2019	15.85
11/8/2019	15.85
11/15/2019	15.85
11/20/2019	15.85
11/27/2019	15.85
12/4/2019	15.85
12/11/2019	15.85
12/19/2019	15.85
12/26/2019	15.85